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ABSTRACT

An analysis of verbs in Tlingit, a U.S. Northwest Coast Indian language, begins with an overview of its situation and usage and of previous research. The second chapter sketches its phonological and syntactic characteristics. Subsequent chapters deal specifically with the verb. An analysis of verb categories distinguishes two groups: argumental and schetic. Two chapters then outline verb morphology: the verb complex (preradical and postradical elements) and morphophonological processes that act on the verb stem and verbal affixes. Chapter 6 describes the formal structure of the inflectional schetic categories, showing the morphological makeup of the categories and their combinations, illustrating with a sample conjugation of the verb "to eat." Lexical and aspectual categories are described and illustrated, and a listing of productive aspectual derivatives is offered, in chapter 7. Chapter 8 examines in detail the semantic properties of the Tlingit schetic categories, exemplifying them with excerpts from available texts. Contains 60 references. (MSE)

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THE SCHETIC CATEGORIES OF THE TLINGIT VERB

BY

JEFFRY A. LEER

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THE UNIVERSITY OF CHICAGO

THE SCHETIC CATEGORIES OF THE TLINGIT VERB

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE DIVISION OF THE HUMANITIES
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

DEPARTMENT OF LINGUISTICS

BY

JEFFRY A. LEER

CHICAGO, ILLINOIS

DECEMBER, 1991

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Jeff Leer

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LIST OF ABBREVIATIONS

A. Argument categories

1SG	First person singular
1PL	First person plural
2SG	Second person singular
2PL	Second person plural
3	Third person (neutral unless otherwise specified)
3SAL	Third person salient
3REC	Third person recessive
REFL	Reflexive
RECIP	Reciprocal
INDEF	Indefinite human
PART	Partitive
PL	Plural
DISTR	Distributive

B. Schetic categories

DEC	Decessive
PERF	Perfective
IMPF	Imperfective

ITER	Iterative
AUX	Auxiliary
HAB.AUX	Habitual auxiliary
CONSEC.AUX	Consecutive auxiliary
COND.AUX	Conditional auxiliary
CONTING.AUX	Contingent auxiliary
ATTR	Attributive suffix
SUB	Subordinative suffix
C. Postpositions	
ERG	Ergative (-*ǯ*)
LOC	Locative (-*x*’~-’~-*∅*)
VICIN	Vicinitative (-ɢ*a*ʻ)
PUNCT	Punctual (-*d*)
PERT	Pertingent (-*x̣*)
ALL	Allative (*-de*ʻ)
ABL	Ablative (*-dáx̣*)
PERL	Perlative (*-náx̣*)
COMIT	Comitative (*-tin*, *-(ʔi*ʻ*)n*)
FUT	Future adverbial (-*n*)
LOC-PRED	Locative-predicative (-*u*ʻ)
D. Other affixes	
EPENTH	Epenthetic vowel

POSS	Possessive suffix
PL	Plural suffix
DIM	Diminuitive suffix
INSTR.N	Instrumental noun suffix
CL	Classifier
THEM.PREF	Thematic prefix

E. Clitics, proclitics, and particles

FOCUS	Focus clitic
INTERROG	Interrogative clitic
WHQ	Wh-question clitic
ADMON.CLITIC	Admonitive clitic
QUOT	Quotative particle

F. Dialects

NT	Northern Tlingit
IT	Interior Tlingit
ST	Southern Tlingit
TST	Transitional Southern Tlingit
SHT	Sanya-Henya Tlingit
TT	Tongass Tlingit

G. Consultants (see also Chapter 8, note 1)

EN	Elizabeth Nyman
WS	Walter Soboleff
EW	Emma Williams

To my mother,

Jean E. Leer

CHAPTER 1

INTRODUCTION

1.1. The Tlingit language and its dialects

Tlingit is a moribund language of the northern Northwest Coast, spoken in Southeastern Alaska as far northwest as Yakutat and in the interior of British Columbia and the Yukon Territory. In recent prehistoric times, perhaps 200-300 B.P., Tlingit territory did not extend as far northwest or as far into the interior, and there were reportedly Tlingit groups further southeast in what is now Tsimshian territory. These groups appear to have either become assimilated to the Tsimshian or to have retreated northwestward. The same applies to the southeastern Eyak groups, which have lost territory to the northwestern Tlingit. The spread of Tlingit along the Taku and Chilkat Rivers into the interior is relatively recent, and attributable mainly to the the Tlingits' role as middlemen controlling trade between Europeans and Athabaskans.

There is surprisingly little dialect diversity in Tlingit, considering its geographic spread. All Tlingit dialects are quite intelligible to speakers of other dialects. The major dialects will be called Northern Tlingit (NT), Transitional Southern Tlingit (TST, spoken in Kake, Wrangell and Petersburg), Sanya-Henya Tlingit (SHT, spoken from Ketchikan to Klawock), and Tongass Tlingit (TT, now almost extinct). The last three may be grouped together as Southern Tlingit (ST). Moreover, Northern Tlingit and Transitional Southern Tlingit may be grouped together as Two-tone Tlingit. These dialects are characterizable in terms of the following major isoglosses:

	NT	**TST**	**SHT**	**TT**
Tone/stigma contrast	2-way	2-way	3-way	3-way
Type of contrast	tone	tone	tone	stigma
Deletion of *i/u* in CV- prefixes	no	yes	yes	yes

Figure 1. Major dialect isoglosses

For the evolution of the tonal system see 2.1.4, and for the deletion of high vowels in ST see 2.1.6.

In addition, Northern Tlingit may be further subdivided into a number of subdialects: Greater Northern Tlingit (GNT), Far Northern Tlingit (FNT, spoken in Haines and Yakutat and some speakers in Hoonah), and Interior Tlingit (IT, spoken in Atlin, Teslin, and Carcross). Isoglosses useful in distinguishing these subdialects are (a) the lowering of *i* to *e* before root-final uvulars, which occurs in FNT, and (b) the rounding of *i* to *u* before root-final rounded consonants, which occurs to some extent in all NT: infrequently in IT, usually in GNT, and always in FNT (except where this rule is bled by the rule lowering *i* to *e*). Finally, there is the recent merger of *ÿ* with *y*, which has spread throughout Tlingit except for the extremities: Yakutat to the north, and Tongass Tlingit to the south (see 2.1.2).

1.2. Genetic affiliations

Tlingit is a member of the Na-Dene phylum, which includes also Eyak and the Athabaskan family. (Haida was originally also classified as Na-Dene by Sapir, but most Na-Dene specialists now consider it an isolate.) Tlingit is by far the most divergent branch of Na-Dene. Although it exhibits considerable and often detailed agreement with Athabaskan-Eyak in core grammatical traits, the percentage of identifiable cognates is not great. In Leer 1990 I proposed a hypothesis that could help explain this fact, arguing that the existence of numerous lexical doublets in the Tlingit lexicon, together with other internal evidence from the Tlingit phonological system and external evidence concerning unexpected phonological changes in borrowings from other languages, point toward the hypothesis that Tlingit is an endohybrid, that is, a hybrid of closely related languages and/or dialects.

1.3. Previous research

The first research on Tlingit was accomplished in the Russian period. Early explorers such as Rezanov collected word lists of nothern Amerindian languages, and European linguists immediately set to proposing genetic classifications on the basis of these. The first serious attempt at grammatical description was published by Veniaminov (1846). Kelly and Willard (1905) managed to identify accurately most of the consonant inventory, but did not attempt a complete grammatical description. They did, however, provide sample verb paradigms that illustrate parts of the schetic system rather clearly.[1] Swanton (1911) was the first to attempt analysis of the verb complex, but the results are mediocre at best. In particular, he completely missed the systematic relationships among the classifiers, treating them as unrelated morphemes with 'modal' meanings. It should also be noted that he did not benefit from Kelly and Willard's insight into the phonology. In all fairness, however, it should be said that his work on Tlingit was all too brief; he worked more extensively with Haida, and his grasp of Haida phonology and grammar appears to have been considerably better.

Boas (1917) laid the groundwork for modern linguistic work in Tlingit. His description of the phonology of Northern Tlingit is accurate, and his exposition of the formal structure of the verb complex approaches completeness. He exposed most of the fundamental mechanisms of the verb, such as the classifier system, the schetic prefixes, the system of classificatory strings, nominal incorporation, and anaphora. He did not, however, reach the point of being able to provide a definitive exposition of the schetic system, partly, no doubt, due to the limited time he enjoyed with his student and informant, Louis Shotridge.

The most substantial and rigorous description of Tlingit to date consists of the cooperatively written M.A. theses of Constance Naish and Gillian Story (henceforth Naish-Story), who lived and worked in Angoon for seven years under the auspices of the Wycliffe Bible Society. Story (1966) deals primarily with the morphology and Naish (1966) with the syntax, but there is considerable overlap between them. Their work is rich in detail, but suffers from awkwardness of organization, which may be mostly due to the limitations of the framework imposed by the linguistic school under which they studied. Their main advances over Boas (1917) consist in the analysis of the NP, treatment of minor word classes, and more complete exposition of verb stem variation and schetic categories. In particular, they describe the interaction between the formal dimensions of the schetic system that I call MODE, SUBMODE, and STATUS--without, however, explicitly recognizing them as independent dimensions. Their enumeration of mode categories, however, is not complete, and they did not recognize the existence of a fourth schetic dimension I call EPIASPECT.

---

[1] I use the term SCHESIS (adj. SCHETIC) to refer to what is usually designated by some combination of the letters T, M, A, and/or S; that is, tense, mood, aspect, status. It is a Greek word meaning something like 'form, condition'.

Here is also to be mentioned the work of the dedicated Na-Dene scholar Heinz-Jürgen Pinnow. Pinnow's work is based primarily on the sources described above, as well as texts collected by Velten (1939, 1944). Most relevant to the subject matter of this dissertation is his historical study of Tlingit verb stem variation (Pinnow 1968). Unfortunately, this study predated Leer's work on Tongass Tlingit, which, as I will point out in 2.1.4 and 5.1.1, provides the key to understanding Tlingit verb stem variation and its relationship to that of Athabaskan and Eyak.

In 1973, at the time I was first grappling with the question of a historical explanation for stem variation in Proto-Athabaskan, I began field work with Tongass Tlingit, and discovered the system of vowel nucleus modifications (which I here call STIGMATA) in this dialect. I immediately recognized its kinship with the Eyak system, and deduced that this system must be ancestral to the tone systems of the rest of Tlingit (see Williams, Williams, and Leer 1978). Further confirmation of this hypothesis lay in the discovery that closed verb stem variation can be described for Tongass Tlingit with a relatively simple apparatus and with rules that are phonologically motivated, whereas in the tonal dialects this verb stem variation is relatively opaque. I then conceived the hypothesis that Proto-Athabaskan, like Eyak and Tlingit, originally had a stigmatic system, which subsequently evolved into a tonal system, as in Tlingit. Applying this hypothesis to the question of the history of Athabaskan verb stem variation, I arrived at the solution published in Leer 1979.

Prior to this time, I had realized that the Tlingit Progressive and Durative were neither primary aspectual categories nor modes, but constituted a separate dimension of the schetic system. I found in my research with Alaskan Athabaskan languages, too, that there was similarly a separate dimension intermediate between aspect and mode, namely what I now call epiaspect (Leer 1978).[2] I also worked on the classification of theme types in Athabaskan and Tlingit concurrently, trying to apply the insights achieved in one to the other, and thus arriving at classifications that were maximally congruent. The results of this comparative effort form the basis of the analysis of the Athabaskan verb in Leer 1978 and that of the Tlingit verb to be presented in this work.

---

[2] My analysis of Athabaskan theme categories and schetic categories was reworked somewhat and applied to Ahtna by Jim Kari (1979). I originally used the term ‘subaspect’, and Kari used ‘superaspect’. I find both terms misleading because they imply a hierarchical relationship between this and aspect, which is not true. I therefore use the term ‘epiaspect’ here.

1.4. Plan of the dissertation

Chapter 2 provides a sketch of the Tlingit sound system and an overview of the grammar. The remaining chapters deal specifically with the Tlingit verb. Chapter 3 provides an analysis of verbal categories, which are seen to fall into two groups: argumental and schetic. Chapters 4 and 5 deal with the morphology of the verb. In Chapter 4, I discuss the templatic structure of the verb complex and list the verbal affixes. In Chapter 5, I summarize the morphophonological rules that operate on the verb stem and verbal affixes. In Chapter 6, I describe the formal structure of the inflectional schetic categories, showing the morphological makeup of the categories and their combinations, illustrating with a sample conjugation of the verb 'to eat'. In Chapter 7, I describe and illustrate the lexical aspectual categories and provide a listing of productive aspectual derivatives. Chapter 8 examines in detail the semantic properties of the Tlingit schetic categories, exemplifying them with excerpts from the corpus of available texts.

CHAPTER 2

SKETCH OF PHONOLOGY AND SYNTAX

In this chapter I will present an overview of the phonology and syntax. This overview is not a complete description of Tlingit grammar, but is intended to orient the reader to the typological nature of the language and facilitate decipherment of the examples given here. In 2.1, I discuss the phonology and general phonological processes. Morphophonemic rules specific to particular morpheme combinations are discussed elsewhere: those specific to the PP in 2.2.3, and those specific to the verb in chapter 5. In 2.2, I provide a sketch of the syntax and discourse-functional structure couched in the framework of Autolexical Syntax, pioneered by Sadock (1991).

2.1. Phonology and general phonological processes

2.1.1. Syllable structure

The canonical structure of the Tongass Tlingit syllable is $C_1V(*)(C_2)(C_3)$. C_1 is the onset; V, the vowel; $*$, the stigma (’, ‘, or ·); C_2 and C_3, the coda consonants. Outside Tongass Tlingit, the stigmatic system is replaced by a tonal system: all stigmatized vowels become long vowels with an associated tone; for details see 2.1.3.

Aspiration is not distinctive for stops in coda position. Non-glottalized stops in coda position are aspirated on the phonetic surface, but they are underlyingly almost always plain stops, and are written as plain stops here (as in Naish 1966 and Story 1966). C_2 can be any unaspirated consonant except *y*. C_3 can be any unaspirated obstruent.

Clusters of coda consonants occur only stem-finally in Northern Tlingit. Such clusters are sometimes generated in prefix positions by vowel elision in Southern Tlingit; see 2.1.5. In a few morphemes and morpheme combinations we find complex onsets, clusters whose first member is a plain affricate-series obstruent. In Southern Tlingit other onset clusters also occur as the result of vowel elision; see 2.1.4-5. These complex onsets are sufficiently marginal to be considered extrasystematic in Northern Tlingit.

2.1.2. Consonant and vowel inventories

The consonant and vowel inventories are presented in Figures 2 and 3. Three typological features of Tlingit deserve special note. First, Tlingit has no labials. Second, there is a systematic contrast between glottalized stops and glottalized fricatives, except that expected **š'* is lacking, probably because it merged with *s'*. The historical significance of these two facts is discussed in Leer 1990a and 1991. Third, there is no contrast between nasal and non-nasal sonorants in Coastal Tlingit: [n] varies idiolectally with [l], and the other three sonorants were historically nasalized syllable-finally, as they still are in most Interior Tlingit. (Note, however, that Interior Tlingit has recently added distinct *l* and *m* to the phoneme inventory.)

	Dental	Affricate-series			Velar		Uvular		Glottal	
					-rd.	+rd.	-rd.	+rd.	-rd.	+rd.
Stops										
plain	*d*	*λ*	*ʒ*	*ǯ*	*g*	*gʷ*	ɢ	ɢʷ	ʔ	ʔʷ
aspir.	*t*	*ƛ*	*c*	*č*	*k*	*kʷ*	*q*	*qʷ*		
glott.	*t'*	*ƛ'*	*c'*	*č'*	*k'*	*k'ʷ*	*q'*	*q'ʷ*		
Fricatives										
plain		*ł*	*s*	*š*	*x*	*xʷ*	*x̣*	*x̣ʷ*	*h*	*hʷ*
glott.		*ł'*	*s'*		*x'*	*x'ʷ*	*x̣'*	*x̣'ʷ*		
Sonorants										
	n			*y*	*ÿ*	*w*				

Figure 2. Consonants

	Front	Back
High	*i*	*u*
	e	
Low	*a*	

Figure 3. Vowels

The following cover symbols are used: *C* for any consonant, *C*° for a non-glottalized consonant, *X* for any obstruent, *R* for any sonorant, *V* for any vowel.

Note that the term AFFRICATE-SERIES STOP is used in place of the traditional term ‘affricate’; AFFRICATE SERIES is used as a cover label for laterals, sibilants, and shibilants. Note also that *ÿ* is an unrounded high back glide whose rounded counterpart is *w*. The phoneme *ÿ* has been replaced by *y* in most Tlingit, *ÿ* remains only in Tongass Tlingit and the Yakutat dialect of Northern Tlingit; this change seems to date from the historical period. Speakers that lack *ÿ* may be called Y-SPEAKERS; for them, *ÿ* has become a morphophoneme, represented by *y* which becomes *w* next to *u* in certain prefix strings; see 5.2.(12).[1]

2.1.3. Spread of rounding

Rounding associated with a vowel spreads leftword to a roundable initial consonant. Rounding associated with a vowel or coda consonant spreads rightward to a following roundable consonant and to suffix-initial *-i* (as well as the epenthetic *ÿ* which is inserted between a stem-final vowel and *-i*); *i* is rounded to *u*. This rounding is orthographically indicated for *i* and *ÿ* (which become *u* and *w*), but not for the obstruents.

(1a) */ʔax̣-qágʷ-i‘/* > *ʔax̣-qágʷu‘* [*-qágʷu(‘)*] (my-basket-POSS) ‘my basket’

(1b) *qágʷ-k’* [*qágʷk’ʷ*] (basket-DIM) ‘little basket’

(1c) */ʔax̣-qágʷ-k’-i‘/* > *ʔax̣-qágʷk’u‘* [*-qágʷk’ʷu(‘)*] (my-basket-DIM-POSS) ‘my little basket’

(2a) */ʔax̣-qú·g-i‘/* > *ʔax̣-qú·gu‘* [*-qú·gʷu(‘)*] (my-box-POSS) ‘my box’

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[1] This alternation also persists in a few cases where verb stem initial *ÿ* follows prefixal *u*; this occurs with the theme *O-u-S-ÿa** 'S resembles O' and in Comparative forms of Descriptive themes with the stems *-ÿat’**, *-ÿaƛ’**, *-ÿač’** meaning 'to be long/short'.

(2b) *qú·g-k'* [*qú·gʷk'ʷ*] (box-DIM) 'little box'

(2c) */ʔax̣-qú·g-,k'-i'/* > *ʔax̣-qú·gk'u'* [*-qú·gʷk'ʷu(')*] (my-box-DIM-POSS) 'my little box'

The suffixes *-x'* 'PL' and *-k'* 'DIM' are moreover rounded after the vowel *a*.

(3a) */ʔax̣-ʔá·-i'/* > *ʔax̣-ʔá·ÿi'* (my-lake-POSS) 'my lake'

(3b) */ʔá·-k'/* > *ʔá·k'ʷ* (lake-DIM) 'little lake'

(3c) */ʔax̣-ʔá·-k'-i'/* > *ʔax̣-ʔá·k'u'* [*-ʔá·k'ʷu(')*] (my-lake-DIM-POSS) 'my little lake'

There is also a diachronic rule that applies variably in some of Northern Tlingit, whereby *i* is rounded to *u* within roots ending with rounded velars. This rule does not apply at all in Southern Tlingit and most Interior Tlingit (Atlin, most Teslin). It applies to most, but not all, roots ending with rounded velars in the southern subsection of the rest of Northern Tlingit. In the northernmost subsection (Yakutat and Haines), however, it applies to all roots ending with rounded velars, including *w*.[2]

2.1.4. The evolution of the tone system

A preliminary comparison of the Tongass stigmatic system with the tonal systems elsewhere was presented in the introduction to Williams, Williams, and Leer 1978, and partially recapitulated in Leer 1979, but these statements do not fully describe tonogenesis in Tlingit. In Leer 1978 I concluded that the stigmatic system seen in Tongass Tlingit rather recently gave rise to the tonal systems elsewhere.

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[2] Actually, in these northernmost dialects the rule can be said to apply before all rounded consonants, but it is bled by a rule that lowers *i* to *e* before root-final uvulars.

The stigmatic system of Tongass Tlingit can be briefly described as follows. The vowel nucleus may be followed by what I call a STIGMA. Alongside the absence of stigma (*V*), there are three stigmata, (*V‘*, *V’*, and *V·*). The first two are glottal modifications: in *V‘* the vowel nucleus is followed by an abrupt transition to murmur or even sometimes faint aspiration due to rapid opening of the glottis, and in *V’* the vowel nucleus is followed by glottal stop. These two glottal modifications correspond to those that occur with stops and affricates: aspiration and glottalization. The third stigma is simply length: in *V·* the vowel nucleus is followed by a non-glottally-modified copy of itself.

The tonal reflexes of these stigmatic types in the rest of Tlingit are given in figure 4.

	Tongass Tlingit	**Sanya-Henya Tlingit**	**Two-tone Tlingit**	**Citation Form**
***upstepped**	*V*	*V́*	*V́*	*V́*
***non-upstepped**	*V*	*V̀* (*V̀*~*V* in Henya)	*V*	*V*
	V‘	*V·*	*V·*	*V‘*
	V’	*V̂·*	*V́·*	*V́’*
***upstepped**	*V·*	*V́·*	*V́·*	*V́·*
***non-upstepped**	*V·*	*V̀·*	*V·*	*V·*

Figure 4. Tonal reflexes of stigmata

The column labeled CITATION FORM gives the normalized orthography to be used in citing forms not attributed to a specific speaker, where both the stigma seen in Tongass Tlingit and the tone seen in Two-tone Tlingit are indicated. If the acute accent is omitted from the citation form, one obtains the Tongass stigmatic form; and if the stigmata ‘ and ’ are replaced by ·, one obtains the form found in the two-way tone system of Transitional Southern Tlingit and Northern Tlingit. The Sanya-Henya tones are also readily predictable from the citation form.[3]

One fact not reflected in Figure 4 is that in Tongass Tlingit the fading stigma may also occur after a sonorant coda of a short closed syllable (*VR‘*). This appears always to be attributable to deletion of a following short vowel in a prefix string: *CV.RV.* > *CVR‘*.

The variation between *V́* and *V* for *V* in Henya Tlingit arises as follows: the three prefix syllables *tu-*, *ku-*, and *ka-*, regardless of their source, are automatically associated with low tone. If the prefix vowel is deleted by contraction, then the low tone reassociates with the following syllable. This allows this dialect to maintain the contrast between the prefix strings illustrated in (4) and (5).

(4) */ÿu-du-ÿa-ʒá*G*/* (PERF-INDEF-CL-kill) > Henya *wúdwáʒá*G ‘one killed it; it was killed’, Northern *wuduwaʒá*G, Sanya *wúd.wá.ʒá*G, Tongass *wud.wa.ʒa*G.

(5) */ÿu-tu-ÿa-ʒá*G*/* (PERF-1PL-CL-kill) > Henya *wúdwàʒá*G ‘we killed it’, Northern *wutuwaʒá*G, Sanya *wú.twá.ʒá*G, Tongass *wu.twa.ʒa*G.

---

[3] Normalized forms will be given in their Northern Tlingit forms with the addition of stigmatic marking, from which the Southern dialect forms may usually be predicted by applying rules specific to Southern Tlingit such as vowel elision.

Also omitted from Figure 4 is the fact that the distinction between high and falling tone (*V́·* and *V̂·*) is neutralized before a sonorant in Sanya-Henya Tlingit. What surfaces is a falling vowel if the sonorant is in coda position, and a high vowel if it begins the next syllable.

Of more general linguistic interest is the development of the two-tone high-marked system of most Tlingit, here called Two-tone Tlingit. This system is characterized by two main features: the merger of falling tone with high tone, and the tonal split with short vowels. The tonal split is part morphologically and part phonologically determined. Short-voweled prefixal and proclitic syllables are low-toned; these include prefixed noun stems, stems of proclitic NPs and PPs, and stems of verbs heading relative clauses, which are normally proclitic to the NP they modify. Otherwise, short syllables are high-toned; these include stem syllables that are not incorporated or proclitic, suffixal syllables, postpositions, and enclitic stems. Given this distribution, the obvious conclusion to be drawn is that this is a case where high pitch associated with stress has been reinterpreted tonally. Further confirmation of this hypothesis is seen in the fact that prefixed and proclitic stems are often reduced, that is, shortened by loss of their stigma; such shortening is cross-linguistically typical of unstressed syllables.

The best available hypothesis can be outlined briefly. Common Tlingit (i.e. the stage just before the differentiation of Tlingit into the modern dialects) had a non-phonemic stress rule roughly statable as follows: stress was associated with stem syllables except for prefixed and proclitic stems. Common Tlingit then split into dialects that retained the stigmatic system--now represented only by Tongass Tlingit--and those that evolved a tone system. The two systems probably looked like stage 1 in Figure 5.

Stigmatic Tlingit:		*V*	*V*ʻ	*V*’	*V*·
Tonal Tlingit (stage 1):	*	*V*	*V̀*·	*V́*·	*V*·
Tonal Tlingit (stage 2):					
*upstepped		*V́*	*V̀*·	*V́*·	*V́*·
*non-upstepped		*V*	*V̀*·	--	*V*·

Figure 5. Evolution of tone

The fact that high tone occurs not only on short STEM syllables but on short SUFFIX syllables in Two-tone Tlingit points toward a way to view the historical development of the tone system that is compatible with autosegmental theory. First, glottal modification in Stigmatic Tlingit gave rise to tone in Tonal Tlingit: *V*ʻ > *V̀*· and *V*’ > *V́*·. Second, stress in Tonal Tlingit gave rise to a register phenomenon in early Tonal Tlingit which we will call UPSTEP (^). We will posit that upstep belongs in a REGISTER TIER separate from the TONE TIER, which contains the tone marking historically derived from the stigmata. The upstep was allowed to spread rightward to the end of the word or clitic group, as opposed to the true tones, which did not spread. The phonetic result of the interaction between upstep and tone was that an upstepped vowel was higher in pitch than the corresponding non-upstepped vowel. This difference in pitch was probably more salient for tonally unmarked vowels than for tonally marked vowels. At some point, upstep was reinterpreted tonally, giving rise to a contrast between *_V_ and *_V́_, *_V·_ and *_V́·_, as seen in stage 2 in Figure 5.

In Sanya and for the most part in Henya, *_V_ and *_V́_ merged as *_V́_; but Sanya-Henya *_V·_ merged with *_V́·_. We thus arrive at the distribution described above for Sanya-Henya. In the rest of Tlingit, *_V̂·_ merged with *_V́·_, and low tone was reinterpreted as unmarked, so that *_V·_ merged with *_V·_. We thus obtain the two-tone high-marked system.

The evolution of the tone system can be illustrated by tracing the proposed historical development of (6)-(10). Here stress is indicated as 'σ and upstep as ^σ, with underlining indicating the spread of upstep.

(6) Stigmatic Tlingit _'hid-dax̣_ (house-ABL) ‘from the house’ >

Tonal Tlingit *_^hiddax̣_ > Two-tone Tlingit _híddáx̣_.

(7) Stigmatic Tlingit _'qa's'-dáx̣_ (stick-ABL) ‘from the stick’ >

Tonal Tlingit *_^qâ·s'dax̣_ > Two-tone Tlingit _qá·s'dáx̣_.

(8) Stigmatic Tlingit _'ʔa's-dax̣_ (tree-ABL) ‘from the tree’ >

Tonal Tlingit *_^ʔa·sdax̣_> Two-tone Tlingit _ʔa·sdáx̣_.

(9) Stigmatic Tlingit _du-'hidi·dax̣_ (3-house-POSS-ABL)

‘from his/her house’ > Tonal Tlingit *_du-^hidi·dax̣_>

Two-tone Tlingit _du-híd-i·-dáx̣_.

(10) Stigmatic Tlingit _du-'ʔa·si·dax̣_ (3-tree-POSS-ABL)

‘from his/her tree’ > Tonal Tlingit *_du-^ʔa·si·dax̣_>

Two-tone Tlingit _du-ʔa·s-í·-dáx̣_.

The final result in Two-tone Tlingit may be obtained by positing that the tone and register tiers of Tonal Tlingit developed into two separate tone tiers in Two-tone Tlingit, which I will call TONE-1 and TONE-2. The tone-1 tier contains the low (L) tone marking inherited from Tonal Tlingit. The tone-2 tier contains a high (H) tone marking historically evolved from the upstep in Tonal Tlingit. This feature H spreads rightward from the stem syllable to the end of the word, but delinks from a given syllable if there is a L associated with the same syllable on the tone-1 tier. At the phonetic surface, H is realized as marked (high) tone, and L is realized as unmarked (low) tone, as is the absence of an associated tone-1 or tone-2 feature.

2.1.5. Vowel reduction in incorporated and proclitic stems

Additional evidence for the existence of stress in Common Tlingit is provided by numerous instances of VOWEL REDUCTION, i.e. loss of stigma and replacement of short *e* by *a*, in incorporated stems and the stems of Attributive verb forms, which were historically proclitic to a following noun. Such stems, I would claim, underwent vowel reduction at a time when they were unstressed.

(11a) *hí·n tá·g* (water bottom) ‘bottom of river, sea (or other body of water)’

(11b) *hin-tag-ˀád-i‘* (water-bottom-thing-POSS) ‘creature that lives in water; sea creature’

(12a) *s’a‘*ɢ ‘bone’

(12b) *s’a*ɢ*-tu-ˀi‘x̣-í·* (bone-inside-oil-POSS) ‘marrow’

(13a) *ˀax̣-x̣’é* (my-mouth) ‘my mouth’

(13b) *ˀax̣-x̣’a-da‘* (my-mouth-periphery) ‘my lips, the area around my mouth’

Not all long-voweled stems lose their stigma when incorporated or proclitic, however; nor is the change *e* > *a* exceptionless. In particular, stems of the form *CV‘*

usually remain unchanged,[4] and proclitic *CV·* > *CVʻ* in the stems of Attributive verb forms. Furthermore, verb stems consisting of a root plus suffix typically do not undergo reduction. The rules for the formation of attributive stem variants are given in 5.1.3, and the incorporated forms of many nouns are listed in 4.1.5 and 4.1.6.2.

2.1.6. Vowel elision

In all Tlingit, the vowels of certain common verbal prefix syllables (*x̣(ʷ)a-*, ɢ*(ʷ)a-*, *wu-*, *ÿi-*, *na-*, *ga-*, *gu-*, *ka-*, *ku-*) are elided between an open syllable and a prestem syllable beginning with an obstruent; for details see 5.2.(13, 15, 15').[5] Note that ɢ*(ʷ)a-* contracts to *x̣(ʷ)-* where elision applies.

Southern Tlingit and Transitional Northern Tlingit (i.e. TT, SHT, and TNT) are characterized by an additional rule of vowel elision: the high vowels *i* and *u* are in many cases elided in the classifiers and certain other common prefixes (*du-*, *tu-*, *ǯi-*, *ƛu-*, *šu-*, *x̣u-*, etc.); see 5.2.(13', 15', 16). This second elision rule provides a major isogloss between Tlingit dialects (see 1.1).

2.1.7. Vowel epenthesis

Tlingit has a phonological constraint to the effect that suffixes beginning with consonants cannot be added directly to stems ending with two coda consonants. In this case, epenthetic *i* (which regularly rounds to *u* after a rounded consonant) is inserted after the second coda consonant, which thereupon forms a syllable with the epenthetic vowel.[6]

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[4] A notable exception is *NO-x̣úʻ-ká* (midst-surface) > *NO-x̣uká*$^{\mathrm{NT}}$ /*-x̣kʷá*$^{\mathrm{ST}}$ 'aboard NO'.

[5] Elision does not apply to *ka-* and *ku-* in Tongass Tlingit.

(14a) *ʔá·* ‘lake’

(14b) *ʔá·-kʷ* (lake-DIM) ‘little lake’

(14b) *ʔá·-xʷ#sá·ni‘* (lake-PL#DIM.PL) ‘little lakes’

(15a) *híd* ‘house’

(15b) *híd-k’* (house-DIM) ‘little house’

(15c) *híd-x’-i#sá·ni‘* (house-PL-EPENTH#DIM.PL) ‘little houses’

(16a) *íx̣t’* ‘shaman’

(16b) *íx̣t’-i-k’* (shaman-EPENTH-DIM) ‘little shaman’

(16c) *íx̣t’-i-x’#sá·ni‘* (shaman-EPENTH-PL#DIM.PL) ‘little shamans’

2.1.8. Allomorphy in suffixes and stems

Morphological rules applying generally to suffixes and stems are stated and illustrated here.

> (17) All productive vowel-initial suffixes have postvocalic allomorphs beginning with epenthetic consonants. Unless otherwise specified, the epenthetic consonant associated with suffixes beginning with *-i* is *ÿ*; these suffixes therefore begin with *-ÿi* after a vowel. Otherwise the epenthetic consonant is supplied in parentheses in the citation form of the suffix.

---

[6] This second coda consonant may be treated as initially unsyllabified, i.e. what Goldsmith calls an 'appendix'. Where followed by a vowel, it is realized as an onset consonant; otherwise, it may be treated as attached to the preceding coda.

Note also that the epenthetic vowel, although always short, is irregularly low-toned in Two-tone Tlingit. I suspect that this is due to analogy with the suffix *-i̔*.

(18) Rounding spreads from a stem-final vowel or consonant to following *-(ÿ)i*, resulting in *-(w)u* (see 2.1.3).

(19) If a suffix has the fading stigma (ʻ), this is replaced by the lengthened stigma (·) after a stem with fading stigma (ʻ).[7]

(20) Noun stems of the shape *CV́* have allomorphs of the shape *CVʻ*- before the possessive suffix *-iʻ*; and *CV́·*- before the plural suffix *-x'*, the diminutive suffix *-k'*, and postpositions.[8]

(21a) *híd* 'house'

(21b) */ˀax̣-híd-iʻ/* > *-hídiʻ* (my-house-POSS) 'my house'

(22a) *t'á·* 'board'

(22b) */ˀax̣-t'á·-iʻ/* > *-t'á·ÿiʻ* (my-board-POSS) 'my board'

(23a) *ˀaʻn* 'town'

(23b) */ˀax̣-ˀʻan-iʻ/* > *-ˀaʻní·* (my-town-POSS) 'my town'

(24a) *gišuʻ* 'pig'

(24b) */ˀax̣-gišuʻ-iʻ/* > *-gišuʻwú·* (my-pig-POSS) 'my pig'

---

[7] This is therefore a stigmatic dissimilation rule by origin, as seen in Tongass Tlingit: *-CVʹ* > *-CV·* after a syllable with stigma ʹ. In its instantiation in Two-tone Tlingit, this rule has become a tonal dissimilation rule: *-CV·* > *-CV́·* after a low-toned syllable. This rule applies to the following suffixes: *-iʹ* 'POSS; SUB', *-iʹn* 'DEC', *-deʹ* 'ALL', *-ɢaʹ* 'VICIN', *-aʹ* 'INSTR.NOUN', and for some speakers also to *-tiʹn* 'COMIT'. Note also that the instrumental noun suffix *-aʹ* and other suffixes of the form *-Caʹ* lose their stigma before the suffix *-iʹ*; as a result, dissimilation does not apply to the suffix *-iʹ* here.

[8] Where these consonantal suffixes intervene in lexicalized combinations of noun plus possessive suffix, however, the fading stigma occurs instead, by analogy with the form without the consonantal suffix. For example, the diminutive of */-šú-iʹ/* > *-šuʹwú·* 'part' is */-šú-kʹ-iʹ/* > *-šuʹkʹú·*; cf. */-šú-kʹ/* > *-šú·kʹ*, the diminutive of *-šú* 'end'. See also note 7 regarding the minor rule ʹ > *Ø/ -(C)a__-iʹ*.

(25a) *kanat'á* 'blueberries'

(25b) */na‘nÿa‘ kanat'á-i‘/* > *kanat'a‘ÿi·* 'upriver blueberries'

(25c) */kanat'á-k'/* > *kanat'á·k*^{w} 'little blueberry'

(25d) */ʔax̣-kanat'á-k'-i‘/* > *-kanat'á·k'u‘* 'my little blueberry'

(26a) *ÿán* 'shore'

(26b) *ÿán-de‘* (shore-ALL) '(toward) ashore'

(27a) *ne‘ł* 'inside'

(27b) *ne‘ł-dé·* (inside-ALL) '(toward) inside'

For most Tlingit speakers, most suffixes to which rule (19) applies, i.e. suffixes with underlying stigma ‘, are either optionally or obligatorily shortened on the phonetic surface, so that the stigma is lost; the shortening tends to be obligatory in Southern Tlingit and optional in Northern Tlingit. The suffixes *-a‘* and *-ɢa‘*, moreover, do not shorten in this way in Northern Tlingit. In tonal Tlingit, the tone associated with the suffix vowel remains. This surface shortening rule thus applies after rule (19) and tone assignation. The stem-suffix combinations in (21b)-(27b) may therefore have the surface forms *-hídi*, *-t'á·ÿi*, *-ʔa‘ní*, *-gišu‘wú*, *kanat'a‘ÿí*, *ÿánde*, *ne‘łdé*. Such shortenings are common in forms taken from specific speakers and texts, but the original stigma will be retained in citation forms here.

2.2. Sketch of syntactic structure

2.2.1. Clause-level structure

Typologically, Tlingit is a head-final language with extraclausal positions at both ends of the clause proper (CP), which will be called FOREPHRASE (FP) and

AFTERPHRASE (AP) position. Using the approach proposed in Sadock (forthcoming), we may characterize the DISCOURSE-FUNCTIONAL structure of Tlingit as follows:

(28) UTTERANCE > (FP_1 (FC)) - (FP_2) - CP - (AP)

I will also refer to the forephrase as a FOCUSED phrase, since the main discourse function of the forephrase is to single out focused element. The forephrase is usually followed by a FOCUS CLITIC (FC) such as *#(ˀ)áwé*; most such clitics begin with *#(ˀ)á* (historically the third person recessive anaphor) and end with a demonstrative like *wé* 'that'; see further 2.2.2.[9] If there is more than one forephrase, the first (FP_1) is typically a sentential adjunct phrase, i.e. a phrase that specifies the discourse relationship with what precedes, such as *ˀa'ɢá·#ˀáwé* 'then' or *ˀáǯ#áwé* 'therefore', and the second (FP_2) is typically a focused element of the utterance.

The afterphrase typically contains a NP or PP containing unfocused old information, often a reference to something whose identity the speaker feels it prudent to clarify or mention afresh.[10]

(29a) {*wé ÿad-ák^w daĺi'w*}$_{CP}$

(that child-DIM 3.is.reading)

'the boy is reading', neutral.

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[9] The Tlingit forephrase with focus clitic has almost exactly the same discourse function as the Haida *huu*-phrase as described in Enrico 1986; note that Haida *huu* is also a demonstrative by origin. The discourse-functional structure of the Haida examples cited in section 2 of Enrico's paper is isomorphic with that of their Tlingit translational equivalents.

[10] The AP may also contain an extraposed, usually 'heavy', phrase, especially an attributive (relative) clause or a conjunct consisting of *qa(ʻ)* 'and' plus a NP.

(29b) {*wé ÿadák'ʷ(#áwé)*}$_{\text{FP}}$ {*datí'w*}$_{\text{CP}}$ 'id.', where the boy is focused.[11]

(29c) {*datí'w*}$_{\text{CP}}$ {*wé ÿadák'ʷ*}$_{\text{AP}}$ 'id.', where the boy is unfocused old information.

In the very rare instances where overt non-pronominal subject and object NPs both occur within the clause proper, Tlingit shows SOV word order, as seen in (33a) below. There is, in fact, a very strong tendency to restrict the number of non-pronominal NPs within the clause proper to just one. If the speaker elects to include more than one non-pronominal NP in the sentence, all but possibly one of these will usually occur outside the clause proper. If a NP occurs outside CP, it is represented in CP by a third person resumptive pronoun (postpositional object *ʔá* (3REC), possessor *ʔa-* (3REC) or *du-* (3NEU), verbal object *ʔa-* ~ *∅*).Quite frequently a possessor or postpositional object will be separated from its logical parent phrase in this way.

(30a) {*wé ša'wád ǯi'-d x̣ʷa'tí·*}$_{\text{CP}}$

(that woman possession-PUNCT I.gave.3)

'I gave it to the woman'

(30b) {*wé ša'wád(#áwé)*}$_{\text{FP}}$ {*du-ǯi'-d x̣ʷa'tí·*}$_{\text{CP}}$

(30c) {*du-ǯi'-d x̣ʷa'tí·*}$_{\text{CP}}$ {*wé ša'wád*}$_{\text{AP}}$

(31a) {*wé nadá·gʷ ká-d tí·n*}

[that table surface-PUNCT 3.is.at.rest]

'it is lying on top of the table'

(31b) {*wé nadá·gʷ(#áwé)*}$_{\text{FP}}$ {*ʔa-ká-d tí·n*}$_{\text{CP}}$

(31c) {*wé nadá·gʷ ká(#ʔáwé)*}$_{\text{FP}}$ {*ʔá-d tí·n*}$_{\text{CP}}$

(31d) {*ʔa-ká-d tí·n*}$_{\text{CP}}$ {*wé nadá·gʷ*}$_{\text{AP}}$

---

[11] Note that *wé ÿadák'ʷ datíʔw* is interpretable as either (2a) or (2b).

If the transitive verb has a definite object, the Ergative postposition -ǯ is added to the subject, as seen in (32).[12] Since the definite object falls under the category of old information, it must occur outside CP: either in AP if unfocused, as in (32b), or in FP if focused, as in (32c-d). Examples where it is not extraposed are judged awkward by WS; such are (32e-g) and (34d).

(32a) *{John-ǯ saˀi·}*$_{CP}$ *{wé ƛiy̓}*$_{AP}$

(John-ERG 3.is.cooking.3 that meat)

'John is cooking the meat'

(32b) *{John-ǯ(#áwé)}*$_{FP}$ *{saˀi·}*$_{CP}$ *{wé ƛiy̓}*$_{AP}$

(32c) *{wé ƛiy̓(#áwé)}*$_{FP}$ *{John-ǯ saˀi·}*$_{CP}$

(32d) *{wé ƛiy̓(#áwé)}*$_{FP}$ *{ʔasˀi·}*$_{CP}$ *{John-ǯ}*$_{AP}$

(32e) ??*{John-ǯ wé ƛiy̓ saˀi·}*$_{CP}$

(32f) ??*{John-ǯ(#áwé)}*$_{FP}$ *{wé ƛiy̓ saˀi·}*$_{CP}$

(32g) ??*{wé ƛiy̓ ʔasˀi·}*$_{CP}$ *{John-ǯ}*$_{AP}$

Certain NPs and PPs are positionally bound so that they must occur to the left of the verb. These are (a) indefinite object NPs, illustrated in (33), and (b) PPs that select verbal aspect, illustrated in (34). Where both these types of bound phrases occur, the bound PP must come closest to the verb, as seen in (35).

(33a) *{John ƛiy̓ ʔasˀi·}*$_{CP}$

(John meat 3.is.cooking.3)

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[12] With an ergative-marked non-pronominal subject preceding the verb, the zero allomorph of the recessive third person object pronoun occurs; otherwise the allomorph *ʔa-* occurs with third person subject. Note that this does not occur with independent pronominals; compare
(a) *John-ǯ saˀi·* 'John is cooking it'
(b) *hú·-ǯ ʔasˀi·* 'he/she is cooking it'

'John is cooking meat'

(33b) {*John(#áwé)*}$_{\text{FP}}$ {*λiˤy ʔasˀi·*}$_{\text{CP}}$

(33c) {*λiˤy ʔasˀi·*}$_{\text{CP}}$ {*John*}$_{\text{AP}}$

(33d) {*λiˤy(#áwé)*}$_{\text{FP}}$ {*ʔasˀi·*}$_{\text{CP}}$ {*John*}$_{\text{AP}}$

(33e) *{*λiˤy(#áwé)*}$_{\text{FP}}$ {*John ʔasˀi·*}$_{\text{CP}}$

(33f) *{*John ʔasˀi·*}$_{\text{CP}}$ {*λiˤy*}$_{\text{AP}}$

(33g) *{*John(#áwé)*}$_{\text{FP}}$ {*ʔasˀi·*}$_{\text{CP}}$ {*λiˤy*}$_{\text{AP}}$

(33a) {*wé dá·na‘(#áwé)*}$_{\text{FP}}$ {*ʔax̣-ǯi‘-d ʔa‘watí·*}$_{\text{CP}}$

(that money(#FOCUS) my-possession-PUNCT 3.gave.3)

'he/she gave me the money'

(34b) {*ʔax̣-ǯi‘-d ʔa‘watí·*}$_{\text{CP}}$ {*wé dá·na‘*}$_{\text{AP}}$

(34c) {*ʔax̣-ǯi‘-d(#áwé)*}$_{\text{FP}}$ {*ʔa‘watí·*}$_{\text{CP}}$ {*wé dá·na‘*}$_{\text{AP}}$

(34d) ??{*wé dá·na‘ ʔax̣-ǯi‘-d ʔa‘watí·*}$_{\text{CP}}$

(34e) *{*ʔax̣-ǯi‘-d(#áwé)*}$_{\text{FP}}$ {*wé dá·na‘ ʔa‘watí·*}$_{\text{CP}}$

(34f) *{*wé dá·na‘ ʔa‘watí·*}$_{\text{CP}}$ {*ʔax̣-ǯi‘-d*}$_{\text{AP}}$

(34g) *{*wé dá·na‘*}$_{\text{FP}}$ {*ʔa‘watí·*}$_{\text{CP}}$ {*ʔax̣-ǯi‘-d*}$_{\text{AP}}$

(35a) {*dá·na‘ ʔax̣-ǯi‘-d ʔa‘watí·*}$_{\text{CP}}$

(money my-possession-PUNCT 3.gave.3)

'he/she gave me money'

(35b) {*dá·na‘(#ʔáwé)*}$_{\text{FP}}$ {*ʔax̣-ǯi‘-d ʔa‘watí·*}$_{\text{CP}}$

(35c) *{*ʔax̣-ǯi‘-d ʔa‘watí·*}$_{\text{CP}}$ {*dá·na‘*}$_{\text{AP}}$

(35d) *{*ʔax̣-ǯi‘-d(#áwé)*}$_{\text{FP}}$ {*ʔa‘watí·*}$_{\text{CP}}$ {*dá·na‘*}$_{\text{AP}}$

(35e) *{*ʔax̣-ǯi‘-d(#áwé)*}$_{\text{FP}}$ {*dá·na‘ ʔa‘watí·*}$_{\text{CP}}$

(35f) *{*dá·na‘ ʔa‘watí·*}$_{\text{CP}}$ {*ʔax̣-ǯi‘-d*}$_{\text{FP}}$

(35g) *{*dá·na‘(#ʔáwé)*}$_{\text{FP}}$ {*ʔa‘watí·*}$_{\text{CP}}$ {*ʔax̣-ǯi‘-d*}$_{\text{FP}}$

I will briefly discuss two alternative accounts for these facts. First is the purely syntactic approach. This involves positing a separate VP node, which includes the bound phrases plus the verb.

(36a) S > (NP) - (PP)* - VP

(36b) S > NP - (NP)

(37) VP > (PP) - (NP) - V

Structure (36b) creates the non-verbal copular sentence, a minor sentence type.

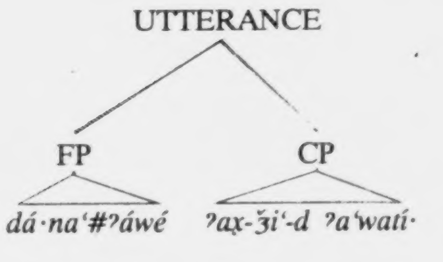
Note that the ergative subject is treated as a PP, not a NP. Thus if the object is definite, it is the only NP directly dominated by S, since the subject is ergatively marked and therefore a PP. If the object is indefinite, on the other hand, it is included in the VP, so that the subject is the only NP directly dominated by S. Thus the S node may directly dominate at most only one NP. This approach has the disadvantage that there is no independent evidence for positing a VP in Tlingit.

The second account involves the interaction between syntax per se and a surface syntactic template or SURFOTAX, as suggested for Yiddish by Sadock (forthcoming). This approach allows us to posit a 'flat' syntactic structure for the clause (XP means either NP or PP):

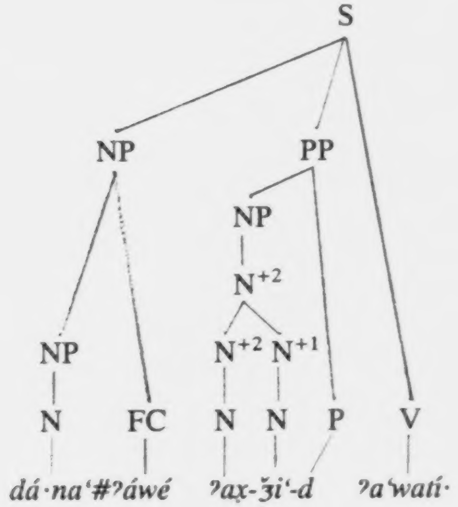
(38a) S > (XP)* - V

(38b) S > NP - (NP)

(a) **Discourse-functional structure**


UTTERANCE
FP
CP
dá·naʿ#ˀáwé
ˀax̣-ǯiʿ-d ˀaʿwatí·

(b) **Syntactic structure**


S
NP
PP
NP
N+2
NP
N+2
N+1
N
FC
N
N
P
V
dá·naʿ#ˀáwé
ˀax̣-ǯiʿ-d
ˀaʿwatí·

(c) **Surfotactic structure**

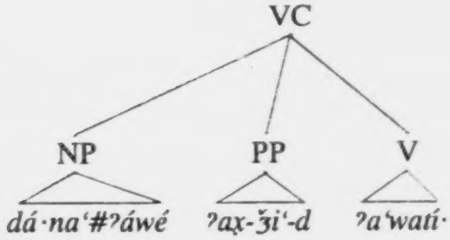

VC
NP
PP
V
dá·naʿ#ˀáwé
ˀax̣-ǯiʿ-d
ˀaʿwatí·

Figure 6. Structure of (39b)

The surfotax assumes the task of imposing linear order on the elements of the verb complex (VC), which consists of bound phrases (NPs and PPs) followed by the verb proper (V):

(39) VC > (NP[-DEF, OBJ]) - (PP[+ASPECT]) - V

Note that in Tlingit, a bound phrase in the surfotax may also be a forephrase in the discourse-functional structure, but only if the requirements of both types of structure are satisfied.[13] Thus, for example, (35b) is acceptable because it satisfies the structural requirements of all components, as shown in Figure 6. Example (35e), on the other hand, is ill-formed because the ordering requirements of the surfotactic structure are not met.

2.2.2. Clitics, proclitics, and particles

Particles are syntactically inert words. The result of adding a particle to a syntactic constituent of a certain type is a syntactic constituent of the same type. The terms clitic and proclitic refer to particles that are phonologically bound to what precedes or follows, respectively.

The focus clitics are phrasal clitics that attach to forephrases.[14] These are listed below for reference. Many of them may occur with a following demonstrative (*-yá, -hé, -wé, -yú*; see 2.2.4) and/or interrogative clitic (*-gí*).

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[13] In Yiddish, on the other hand, a pronominal element that is singled out as a topic by the discourse-functional component does not have to satisfy the requirements of the surfotax; rather, it is thereby rendered 'invisible' to the surfotax.

[14] Naish-Story call these 'post-marginals'; see Naish 1966:5.322.

#sá (WH-question)

#(ʔ)á(-DEM) (focus)

#(ʔ)á-gí(-DEM)[15] (interrogative)

#(ʔ)á-sí(-DEM) (indicates discovery of something previously unclear) ‘oh, so...; I see...’

#(ʔ)á-s-gí(-DEM) (indicates second-hand information about something previously unclear) ‘I hear...; I guess...’

#quʔa(‘)(-DEM) (contrastive) ‘however’

#x̣á(·)(-DEM) (softens an assertion) ‘you see’

#šágdé·(-DEM) (dubitative implying likelihood) ‘perhaps, probably’

#(s)dágá·(-DEM) (emphatically assertive) ‘indeed, for sure’

#gí(-DEM) (dubitative not implying likelihood) ‘perhaps; I guess, it would seem...’

#šé(·)(-DEM)(-gí) (indicates mild surprise)

#gʷá·~guʔá·(-DEM)(-gí) (indicates strong surprise)

#gʷšé(·)~gušé(·)(-DEM)(-gí) (dubitative requesting corroboration, or quasi-rhetorical interrogative) ‘eh?; I wonder...’

#ʔú’š(-gí) (hypothetical) ‘as if...; if only...; even if...’

---

[15] *#(ʔ)á-gí-* contracts to *#(ʔ)ág-* before a demonstrative and usually also before *#cú* ‘also’.

The clitic *#sá* is obligatory with WH-question phrases, and occurs in the following combinations: *#sá(-DEM)* (focus), *#s-gí(-DEM)* (dubitative), *#sá-gʷšé(·)(-DEM)* or *#s-gúšé(·)(-DEM)* 'I wonder', *#s-dágá·(-DEM)* '(what) on earth?!'.

The following phrasal clitics are distinguishable from the above in two respects. First, all but *#xʷán* and *#cé* may occur after focus clitics (with or without demonstrative finals). Second, all but *#cá* and *#cú* occur in independent clauses with the Imperative, Hortative, or Admonitive modes. In this case, if there is no XP, then they follow the verb itself.

#cá 'only then'

#cú 'also'

#s'é 'first'

#dé· 'now, this time'

#xʷán (with Imperative, Hortative) 'be sure to...!'

#cé (with Admonitive) 'be sure not to...!'

The following PHRASAL PROCLITICS can be roughly semantically characterized as intensifying.[16]

č'a# 'ipse; the very...; just...'

č'as# 'only...; just...'

č'u(')# 'even'

ƛax̣# 'very'

---

[16] Naish-Story call these 'pre-marginals'; see Naish 5.321.

Particles may be divided into two subtypes according to where in the sentence they may occur. MOBILE PARTICLES may occur before or after any phrase in a clause:

ƛe(ʻ) ‘just, simply; just then’[17]

de(ʻ) ‘already, (by) now’

cu(ʻ) ‘again, still, some more’

SENTENCE-INITIAL PARTICLES are confined to the head of the sentence.[18] Examples are

ƛé(·)ł ~ ł (negative) ‘not’

gʷáł (dubitative) ‘perhaps’

guʔaʻł (optative) ‘I hope...; would that...’

qaǯ(uʻ) ~ x̣aǯ(uʻ) ‘actually...; in fact...(contrary to what was thought)’

qašde(ʻ) ‘I thought...’

2.2.3. Structure of the postpositional phrase

The PP has the following syntactic structure:

(40) PP > NP - P

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[17] This occurs quite frequently in narrative sequences, where it may indicate immediacy of transition between situations or contact between situations. It is so frequently used that in many cases it seems semantically almost bleached away.

[18] Naish-Story call these 'clause marginals'; however, they include here phrases which I would classify as PPs in FP_1 position, such as *ʔá-ǯ#áwé* 'therefore' and *ʔaʻ-ɢá·#ʔáwé* 'then'; see Naish 1966:5.31.

Morphologically, postpositions are suffixes.[19] The suffixal postpositions are listed here for reference. These take postpositional object (PO) forms of the pronominals, which in most cases are formed by adding a possessive pronominal prefix to the PO base formant *-ʔi-*. In addition to the postpositions proper, there is a Locative Predicative suffix, which functions syntactically as a postposition plus non-verbal predicate.

Ergative (ERG) -ǯ ‘because of’.

In Ergative derivative: ‘by means of’.

Indicates agent of transitive verb with definite object.

Punctual (PUNCT) *-d*

With Positional Imperfective: ‘(resting) at’.

In Telic derivative: ‘(coming) to, (arriving) at’.

In Atelic (na-aspect) derivative: ‘(moving) about’.

Pertingent (PERT) -x̣ ‘(in prolonged contact) at; (repeatedly arriving) at; being, in the form of’.

Locative (LOC) *-x’* ~ *-’* ~ *-∅* ~ -‘at (the scene of); (temporal) ‘at (the time of)’.

Vicinitative (VICIN) -ɢ*a‘* ‘(distributed) in the area of, (going) after, (waiting) for; (temporal) ‘about the time of’.

Allative (ALL) *-de‘* ‘to, toward’; (temporal) ‘until’; (in lexicalized expressions) ‘in the manner of’.

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[19] Naish-Story call these 'syntactic markers'; see Naish 1966:5.4.

Ablative (ABL) *-dáx̣* ~ *-dx̣* ‘from, out of’; (temporal) ‘since’.

Perlative (PERL) *-náx̣* ‘along, via’;

(temporal) ‘including the time of’.

Comitative (COMIT) *-tin*, *-(ʔiʻ)n* ‘(along) with, by means of;

(temporal) ‘as soon as’.

Locative Predicative (LOC-PRED) *-uʻ* ‘is/are at’

The Locative postposition has the following allomorphs in bound PPs: *-’* after *CV́*, *-Ø* after *CVʻ* or *CV́·*, and *-i* after roots ending in a consonant. The Ablative postposition *-dáx̣* may optionally lose its vowel after an open root. Most roots of the shape *CV́* are lengthened to *CV́·-* before these postpositions. There are two groups of exceptions: (a) the anaphor *ʔá* ‘3REC, it, there’ and the relational nouns *ká* ‘surface’ and *ÿá* ‘face’; and (b) the pronominal PO bases *x̣a-* (1SG), *ʔu-* (3NEU), *tu-* (REFL), *qu-* (INDEF), and *-ʔi-* (PO base used with pronominal prefixes. These have different forms before (a) the non-vocalic postpositions (*-ǯ*, *-d*, *-x̣*, *-x’*, *-dx̣*) and the Locative Predicative suffix (*-uʻ*), and (b) the vocalic postpositions (*-ɢaʻ*, *-deʻ*, *-dáx̣*, *-náx̣*), as shown in Figure 7.

Allomorph before:	**non-vocalic P and *-uʻ***	**vocalic P**	***-i***
most *CV́*	*CV́·-*	*CV́·-*	*CVʻ-*
ʔá*, *ká*, *ȳá	*CV́-*	*CVʻ-*	--
x̣a-*, *ʔu-*, *tu-*, *qu-*, *-ʔi-	*CV́·-*	*CVʻ-*	--

Figure 7. Nominal stem allomorphs

Besides these, the *ˀá*-group have unique alternate Ablative forms *ˀa‘x̣, ka‘x̣, ÿa‘x̣* (cf. Translative *ˀáx̣*, etc.), and Perlative forms *ˀanax̣, kanax̣, ÿanax̣*. Moreover, the PO stems have special Comitative forms *ˀa‘n, x̣a‘n, ˀu‘n, tu‘n, qu‘n, -ˀi‘n*.

A second category of morphs that have traditionally been considered postpositions will here be treated as opaque combinations of relational noun plus postposition; these will be called RELATIONAL POSTPOSITIONS.[20] Like relational nouns, which are alienable, these relational postpositions take possessive pronominals as objects; however, the resulting phrase functions as a PP, not a NP. Moreover, if a relational noun is the object of a relational postposition, it is incorporated in the same way as it would be as the object (i.e. possessor) of another relational noun. Examples (42)-(43) illustrate the parallelism between relational postpositions such as *-ná*G '(going, taking something) away from' and relational nouns such as *-da‘* 'periphery'; here *x̣'a-* is the incorporated form of *x̣'é* 'mouth'.

(41a) *x̣a‘-dáx̣* or *ˀax̣-ˀi‘-dáx̣* (me-ABL) 'from me'

(41b) *ˀax̣-x̣'é·-dáx̣* (my-mouth-ABL) 'from my mouth'

(42a) *ˀax̣-ná*G (my-away.from) '(taking something) away from me'

(42b) *ˀax̣-x̣'a-ná*G (my-mouth-away.from) '(taking something to eat or drink) away from me'

(43a) *ˀax̣-da‘* (my-periphery) '(the area) around me'

(43b) *ˀax̣-x̣'a-da‘* (my-mouth-periphery) '(the area) around my mouth; my lips'

The most important of the relational postpositions are

G*ú·d* 'without'

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[20] Naish (1966:5.4) considers these postpositions ('syntactic markers') that happen to be full words.

náG ‘(going, taking something) away from’

ÿís ‘for’

ÿáx̣ ‘like, as much as, according to’

ÿá’náx̣ ‘more than’

qín ‘less than’

2.2.4. Structure of the noun phrase

Like most languages, Tlingit has a recursively embeddable possessive construction, as seen in (43). The rule for the possessive construction is given as (45b). In addition to this projection of N, we need a higher level where inclusive, demonstrative and attributive (relative) clause modifiers are added, and a lower level where adnominal modifiers are added.[21]

(44) *{{{{{ʔax̣-}ʔi’š} híd-i} ÿi‘-}ʔád-i}*

(my-father house-POSS inside-thing-POSS)

‘the things inside my father’s house’

(45) NP > (INCL) (DEM) - (S[Attr]) - N^2

(46a) N^2 > N^1[-Poss]

(46b) N^2 > N^2 - N^1[+Poss]

(47) N^1 > (PRENOM)* - N - (POSTNOM)

---

[21] Naish-Story's treatment of the NP implies a flat structure. Their coverage of the elements of the NP is nevertheless thorough, and the exemplification useful; see Naish 1966:8.3512.

Note also that the attributive (relative) clause can occur outside the NP proper; since it frequently constitutes a 'heavy' phrase, it may 'shift' to the rear of the sentence, in which case, according to the present analysis, it constitutes a afterphrase.

The INCLUSIVE is *łdakád* ‘all’. The DEMONSTRATIVES are listed for reference:

yá(·) ‘this (right here)’

hé(·) ‘this/that (over here), the other’

wé(·) ‘that (at hand)’

yú(·) ‘that (distant), yonder’

These also occur with *-d*, e.g. *yá·d* ‘this (place)’, that are used before the Locative Predicative suffix *-u‘* to yield *yá·du‘* ‘here is/are’, and contract with the PRO-nouns *ʔa‘* ‘one’ and *ʔád* ‘thing’ to yield NPs such as *yá·t’a‘* ‘this one’ and *yạ́·t’ád* ‘this (thing)’.

Adnominal modifiers are either prenominal or postnominal.[22] Among the prenominal modifiers are the numerals and a small group of other descriptive modifiers like *ÿí·s* ‘new’. Possibly to be included among the latter are modifiers like *č’á·gu* ‘old’; these, however, require the following noun to occur in its possessed form, so that the combination of modifier and modified looks like a possessive construction.[23] Postnominal modifiers are also descriptive. Many of these are regularly formed from the Comparative derivatives of Descriptive verbs, such as *kuwá’t’* ‘long’; see 7.1.1.2. In addition, there are a few suppletive forms like *ƛe‘n*

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[22] Naish-Story call these ’pre-modifiers’ and ’post-modifiers’; see Naish 1966:6.44.

[23] See Naish 1966:8.3512.

'big', as well as some miscellaneous forms like *ságʷ* 'future,...-to-be' and *ÿí·ÿi'* 'former, ex-...', as well as the kin-term pluralizers *#hás* and *#ÿán*.[24]

Note that some of the postnominal modifiers are clitics. It would also seem possible to argue that the diminuitive suffix *-k'* and the plural suffix *-x'* function syntactically as a postnominal modifiers, although morphologically, they are clearly suffixes. Then the following strings could all be considered postnominal modifiers:

	Non-plural	**Plural**
plain:	--	*-x'*
with kin terms:	--	*#hás, (-x')#ÿán*
'small...':	*-k'*	*-x'#sá·ni'*
'big...':	*ƛe'n*	*ƛén-x'*
'long...':	*kuwá't'*	*kudaÿát'-x'*

etc.

Tlingit has three lexical categories of nouns: PROPER, ALIENABLE, and INALIENABLE. Inalienable nouns, such as (48), are always possessed, proper nouns are never possessed, and alienable nouns have both unpossessed and possessed forms, such as (49). In almost every case, the possessed form of an alienable noun is formed with the addition of the possessive suffix *-i'*.[25]

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[24] The pluralizer *#hás* may used after any nominal whose referent is human, to refer to a group including the referent.

[25] This suffix is also added to inalienable nouns referring to body parts. The result is a lexicalized combination, often designating a body part that is somehow 'alienated' from the body, e.g. *xú'ʒ šá* 'bear head (as part of the bear)' vs. *xú'ʒ ša'ÿí·* 'bear head (decapitated)'.

(48) *NO-x̣'é* 'NO's mouth'

(49a) *híd* 'house'

(49b) *NO-híd-i'* 'NO's house'

Inalienable nouns are divisible into two groups: KIN NOUNS, such as (50); and RELATIONAL NOUNS, which refer either to body parts and parts of objects or to locations relative to an entity, such as (51) and (52).

(50) *NO-ƛá'* 'NO's mother'

(51) *NO-ká* 'surface of NO'

(52) *NO-šu-ká* 'place in front of NO').

A possessed noun, whether alienable or inalienable, cannot occur without a possessor. The possessor is syntactically obligatory in the same way as the argument of a verb or a postposition is. For this reason, we may consider the possessor to be an argument of the possessed noun, specifically its object, for reasons to be explained below. Accordingly, we will use the following terminology: the possessor of a possessed noun will be referred to as a NOMINAL OBJECT (NO), a possessed noun as a TRANSITIVE NOUN, and an unpossessed noun as an INTRANSITIVE NOUN. An inalienable noun is therefore obligatorily transitive.

2.2.5. Noun incorporation

One reason for considering possessors to be objects is the lexical similarity between verbal object (VO) pronominals and nominal object (NO, i.e. possessive) pronominals. These are for the most part identical in form (see Figure 10 in 3.1.3).

Note also that the possessive suffix follows the suffixes *-x̣'* and *-k'*.

A more important reason is that treating possessors as objects permits an elegant treatment of nominal incorporation. Let us first consider nominal incorporation into nouns, traditionally referred to as noun-compounding. We may distinguish two main categories: incorporation into an intransitive noun, and incorporation into a transitive noun. Examples of the former are (53) and (54). The resulting compound is an alienable noun; that is, a lexically paired intransitive noun and corresponding transitive noun. In this type of compound the incorporate modifies the incorporator, i.e. the prior member of the compound.

(53) *łu-nás* 'nose-ring'

(54) *wa*G*-dá·na'* (eye-silver) 'eyeglasses'

In contrast, with incorporation into a transitive noun the semantic relationship between the incorporator and the incorporate is one of possession. For example, in (55), *tá·g* 'inside surface' is logically the possessor of *NO-ǯín* 'NO's hand'. In most instances, the incorporator (possessum) is a relational noun (like *tá·g*). There are cases, however, where the incorporator is a transitive (possessed) form of an inalienable noun, such as *-hídi* in (56). In some cases, incorporation is optional, e.g. (57).

(55) *NO-ǯin-tá·g* (NO-hand-inside.surface) 'NO's palm'

(56) *hu'n-da'ka-híd-i* (sale-containing-house-POSS) 'store'

[where the incorporate is *hu'n* 'sale', and the incorporator is *NO-da'ka-híd-i*, 'house/building for NO', itself a compound].

(57) *hí·n tá·g* or *hin-tá·g* (water/river inside.surface)

'bottom of water/river'

Although morphological incorporation is involved in noun-compounding, there is no clear evidence that incorporation is taking place within the syntax (see Sadock 1991). There is some evidence, however, that syntactic incorporation does occur with verbs. With very few exceptions, syntactic incorporation occurs only with objective and transitive verbs, and here the incorporate is always syntactically the OBJECT of the verb.[26]

Incorporated nouns occupy two contiguous orders or positional slots in the Tlingit verb complex; these occur to the right of bound phrases and clitics, and to the left of all other prefixes. The rightward of these, order +5, contains transitive incorporates, which are all inalienable noun stems, as well as thematic-derivational prefixes homophonous with them. This order contains several suborders, which allows for more than one incorporate to occur. The leftward, order +6, contains intransitive incorporates, namely unpossessed alienable nouns and object pronominals (in the autolexical view of Tlingit syntax, pronominal prefixes are to be treated as incorporated nouns).

The intransitive incorporates can be accounted for quite simply: these are syntactically objects of the verb, and morphologically prefixes. An example is (58), where the incorporated intransitive noun *sa‘* ‘name’ is the object of the theme *O-S-∅-sa*·* ‘S names O’.[27]

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[26] There are a few instances of incorporation of an inalienable noun into an intransitive verb, for example _O-šu-S-∅-gud_*(act. motion) 'S leads singular O' from _S-∅-gud_*(act. motion) 'singular S walks, goes by foot' (and the corresponding plural themes with root _-ʔad_*), where the incorporate is _NO#šú_ 'the end of NO'. In this case the incorporate might be regarded semantically as a locus ('S walks at the end of [i.e. leading] O'); but if this were so, we would expect the derived theme to mean 'singular S leads O' rather than 'S leads singular O'. It would appear, then, that the the subject has somehow been converted into the object, as in a causative.

(58) *ax̣-ÿá-’ sa‘-ˀuwasá·* (my-face-LOC name-3.named)

‘she gave me a name’

Most interesting is the case where a transitive noun is incorporated into the verb; these are always relational nouns. Here we have evidence that clearly shows that both the transitive noun and its object are incorporated into the verb. The situation is this: the incorporated inalienable noun occurs as an order +5 prefix, and its object, if pronominal, occurs as an order +6 prefix (i.e. to the left of the inalienable noun). This incorporated nominal object pronominal thus occupies the same position as a verbal object pronominal.

The evidence for syntactic incorporation lies in the fact that where the pronominal has different forms for (non-incorporated) nominal object (NO) and verbal object (VO), the form for the VERB-INCORPORATED NOMINAL OBJECT (VNO) is sometimes identical with the NO form and sometimes identical with the VO form. With the 3NEU/3REC pronominal, the VNO pronominal is the same as the VO form (*∅*);with the INDEF and REFL pronominals, the VNO pronominal is the same as the NO form (*∅[+D],qu-*); and with the 1SG pronominal, the VNO pronominal may have the form of either the VO or the NO (*x̣ad-* or *ˀax̣-*); see further Figure 20 in 4.1.6.1.[28]

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[27] The presence of the incorporated object *sa′* precludes the appearance of the third person object prefix *ˀa-* that would appear if the object were not incorporated.

To see how this works, let us compare examples with and without incorporation:

(59a) *ˀax̣-šá ˀa-wɬixa‘ǯ* (1SG-head/hair 3-3.cut) ‘she cut my hair’

(59b) *ˀax̣/x̣ad-ša-wɬixa‘ǯ* (1SG-head/hair-3.cut) ‘id.’

(60a) *du-šá ∅-x̣ʷɬixa‘ǯ* (3-head/hair 3-I.cut) ‘I cut her hair’

(60b) *∅-ša-x̣ʷɬixa‘ǯ* (3-head/hair-I.cut) ‘id.’

(61a) *ˀax̣-šá yé’#∅-gʷƛĩyá·t’* (1SG-head/hair thus#3-plural.are.long) ‘my hair is long’

(61b) *yé’#ˀax̣/x̣ad-ša-gʷƛĩyá·t’* (thus#1SG-head/hair-plural.are.long) ‘id.’

(62a) *du-šá yé’#∅-gʷƛĩyá·t’* (3-head/hair thus#3-plural.are.long) ‘her hair is long’

(62b) *yé’#∅-ša-gʷƛĩyá·t’* (thus#3-head/hair-plural.are.long)

In terms of the explanation of incorporation developed in Sadock (1991), the incorporation seen in the (b) sentences results in a mismatch between the morphology and the syntax. Syntactically, *ˀax̣/x̣ad-ša-* ‘my hair’ is the object of the verb, and *ˀax̣/x̣ad-* ‘my’ is the object of *ša-* ‘hair’. Morphologically, both *ˀax̣/x̣ad-* and *ša-* are prefixes, each occupying the appropriate slot in the verb template, as seen in the following diagram of the morphological and syntactic structures of (61b).

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[28] The NO form of the reciprocal pronominal is generally *(ču)š#*, except where the head noun is a relational noun. In this case, the zero allomorph of the NO form occurs if the relational noun is the object of a postposition; but if the relational noun is the object of the verb, it is obligatorily incorporated, so that the zero V-incorporated NO form of the reciprocal pronominal occurs as its object.

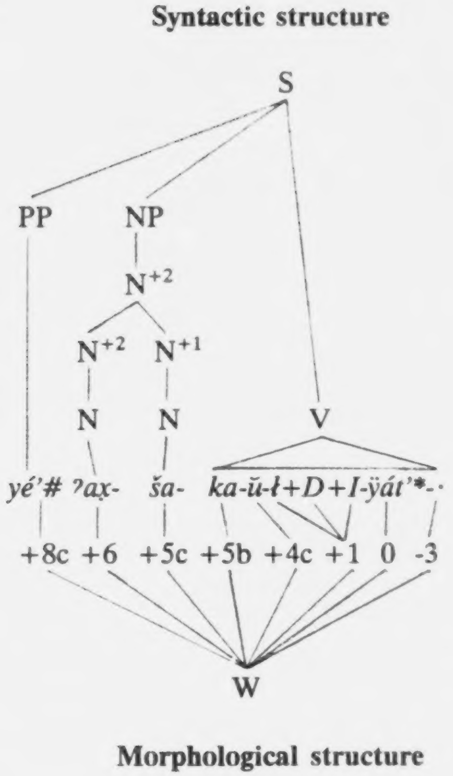
Syntactic structure
S
PP
NP
N^{+2}
N^{+2}
N^{+1}
N
N
V
yé'#
ˀax̣-
ša-
ka-ŭ-ł+D+I-ÿát'-·*
+8c
+6
+5c
+5b
+4c
+1
0
-3
W
Morphological structure

Figure 8. Structure of (61b)

One might argue that it is not necessary to appeal to syntactic structure; the lexicon could specify that the choice between competing object pronominals is determined by the presence or absence of an order +5 prefix. And it seems that this also can optionally be a factor in the selection of the VO pronominal, as seen in (64).

(63) *yé'#qa·-ša-*g^w*λīÿá·t'* (thus#INDEF-head/hair-plural.are.long)

'one's/people's hair is long' [not **yé'#qu-ša-*g^w*λīÿá·t'*]

(64) *qu-šaÿadihé·n* or *qa·-šaÿadihé·n* (INDEF-are.many)

'there are a lot of people; people are many'

(65) *qu-diyéš*G (INDEF-are.few)

'there are few people; people are few'.

The verb theme in the second sentence is *O-ša-ÿa-d-ha**' 'plural O are many'. Here *ša-* is a thematic prefix, and no syntactic incorporation is involved; *qu-* is simply the VO. Nevertheless, the VNO form of the pronominal *qa*·- may occur, as if it were the object of incorporated *NO#šá* 'NO's head'. But note that the VO form *qu-* is not possible where incorporation has occurred.

Therefore the description of the choice of pronominal must refer both to syntactic structure and to morphological structure.

To sum up, OBJECT INCORPORATION occurs with transitive nouns, transitive verbs and objective verbs. The difference between incorporation into verbs and incorporation into nouns is that the former is demonstrably syntactic, whereas the latter is not. The proof that incorporation into verbs is syntactic rests in the fact that if an inalienable noun stem is incorporated into a verb, it takes object pronominals that are in some cases different from the ordinary set of object pronominals. If an inalienable noun stem is incorporated into a noun, on the other hand, it takes the ordinary set of possessive pronominals (the NO set), just like a non-incorporated possessum. Thus object incorporation into nouns is syntactically opaque, but object incorporation into verbs must be represented in the syntax.

CHAPTER 3

CATEGORIAL ANALYSIS OF VERBAL FORMS

In Leer 1978 and Kari 1979, verb formation is viewed in terms of STRINGS, that is, lexemes consisting of sequences of morphemes or individual morphemes that, upon all being added together, sort themselves out positionally according to the templatic structure of the verb complex. Verbal strings are called THEMES; these are the set of morphemes common to all forms of what is lexically considered the same verb--namely, a ROOT, a CLASSIFIER, and optionally one or more affixes, called THEMATIC AFFIXES--plus the VALENCE or transitivity class and the aspectual category of the verb.

To the theme are added DERIVATIONAL STRINGS. ASPECTUAL DERIVATIONAL STRINGS have their own aspectual class, which supplants that of the theme. ARGUMENTAL DERIVATIONAL STRINGS affect the argument structure of the verb. A theme plus one or more derivational strings is called a BASE.

To the base are added the INFLECTIONAL STRINGS. These may be grouped into two categories: SCHETIC INFLECTIONAL STRINGS, which specify schetic categories (aspect, tense, status, mood, and polarity); and ARGUMENTAL INFLECTIONAL STRINGS, which fill in the argument slots. After the morphemes are arranged according to the template and all morphophonemic processes are applied, the result is a verb form. An example will illustrate this approach:[1]

Theme: *O-S-s-ʔi*·* (0: ·-Processive) 'S cooks O'

aspectual derivational string: Exhaustive *ÿax̣#ÿa-s-* (0, with x̣-Iterative) 'affecting all/many/much O'

argumental derivational string: Benefactive *ga-(+D)* 'doing for self'

argumental derivational string: Classificatory *ka-* 'small round O'

Base: *ÿax̣#O-ÿa-ka-ga-s+D-ʔi*·* (0, with x̣-Iterative) 'S cooks all O (small round objects) for self'

schetic inflectional string: Telic Assertive Perfective *ÿu-(+I)...-ÿ*

argumental inflectional string: object *ʔa-~∅* 'third person'

argumental inflectional string: subject *x̣a-* 'first person singular'

Verb: *ÿax̣#∅-ÿa-ka-ga-ÿu-x̣a-s+D+I-ʔi*·-ÿ* > *ÿax̣#ÿakagax̣ʷʒiʔi·*

'I cooked them (small round objects) all for myself'

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[1] The morphemes composing strings are listed and discussed in Chapter 4. Morphemes followed by # are proclitics of order 8; prefixes and suffixes are separated by...(which represents the root or stem) in derivational and inflectional strings. Note also the order classes of the following prefixes in thematic and derivational strings; unless otherwise noted, all other thematic-derivational prefixes belong to order +5:
Order +1 (Classifiers): *∅-,ł-, s-, š-; ∅+D-,ł+D-, s+D-, š+D-*
Order +2 (Subject pronominals): *du-*
Order +4 (Schetic prefixes): *u-, u·-, ŭ-*
Order +6 (Object pronominals): *qu-, ʔa-, ʔad-*

The root or stem of a theme can be identified by the fact that it immediately follows the classifier; variable roots are marked with *, often followed by a grapheme specifying variable root type (see 5.1). Aspectual information is given in parentheses following the thematic or derivational string; this will be omitted until section 3.3, where aspectual categories are introduced.

Verbal morphs are thus divided into the familiar structural categories: lexical (here called thematic), derivational, and inflectional. Cross-cutting these structural categories is the typological division into argument categories and schetic categories.

3.1. Core argument categories

Argument categories are those that represent or affect syntactic arguments of a verb. Argumental derivational strings modify the argument structure of the verb or place selectional restrictions on verbal arguments, and argumental inflectional strings are the pronominal elements that fill argument slots. Verbal arguments can be subdivided into CORE ARGUMENTS, namely verbal subject and object, and OBLIQUE ARGUMENTS, other phrases specified by the lexical structure of the verb, such as complements of manner. We will first consider the core argument categories.

3.1.1. Valence

Each verb theme belongs to one of four valence classes distinguished on the basis of the form of incorporated pronominals with which the verb is inflected, that is, whether the theme contains slots for free (i.e. non-lexicalized) subject pronominals, free object pronominals, both, or neither.[2]

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[2] Following Boas and Naish-Story, I continue to use the terms ‘subject’ and ‘object’ for the two types of incorporated pronominals, even though the terms ‘agent’ and ‘patient’ might be on the whole more accurate. Verbs inflected with object pronominals are thus termed ‘objective verbs’ here. These correspond to the ‘unaccusative verbs’ of Relational Grammar and ‘ergative verbs’ of Government and Binding.

	-Object	**+Object**
-Subject	impersonal	objective
+Subject	intransitive	transitive

Figure 9. Valence types

The following examples illustrate these types:

(1a) Impersonal: theme *ʔa-∅+D-gan** ‘the sun shines’

(1b) *ʔawdiga‘n* ‘the sun is shining’ (no pronominal).

(2a) Objective: theme *O-∅-k’é·* ‘O is good’

(2b) *x̣ad-ÿak’é·* ‘I am fine’ (object *x̣ad-*).

(3a) Intransitive: *S-∅-gud** ‘single S walks, goes on foot’

(3b) *ÿa‘#nx̣agúd* ‘I am walking along’ (subject *x̣a-*).

(4a) Transitive: *O-S-s-x̣án* ‘S loves O’

(4b) *ʔi-x̣six̣án* ‘I love you’ (subject *x̣a-*, here contracted; object *ʔi-*).

The impersonal and objective types both have subtypes with a lexicalized indefinite human subject pronoun *du-*, which in this case would appear to have no syntactic role. These will be referred to as the DU-IMPERSONAL and DU-OBJECTIVE subtypes, illustrated below:

(5a) Du-impersonal: theme *du-∅-nig*^{w}* ‘the wind blows’

(5b) *wuduwanig*^{w} ‘the wind is blowing’ (no pronominal).

(6a) Du-objective: theme *O-ka-du-∅-saÿ**’ ‘O (person) is hot, sweaty’

(6b) *x̣ad-kawduwasáÿ* ‘I am hot’ (object *x̣ad-*).

For the most part, these transitivity types correspond fairly well with what we expect cross-linguistically of split-intransitive systems. The Tlingit split-intransitive system is comparable with the Acehnese system (see Van Valin 1990:249). Themes with a single argument which is semantically a non-agent are objective, e.g. ‘to be’, ’to be good’, ‘to have something happen to one’, ‘to get tired’, ‘to sweat’, ‘to turn red’, ‘to break’, ‘to fall’. Themes with a single argument which is semantically an agent are generally intransitive, e.g. ‘to walk’, ‘to sit’, ‘to talk’, ‘to weep’.[3]

As one expects in such a split-intransitive system, intransitive and transitive themes as a rule take only animate subjects.[4] Although in some cases abstract inanimate nouns may occur with such themes, these may be regarded as personified, e.g.

(7) *ÿi·s ta‘d ha‘d#ˀuwagúd*

(new night hither#3.has.come)

‘the New Year has arrived’

(8) *tá·-ǯ x̧ad-ˀuwaǯá*G

(sleep-ERG me-3.has.killed)

‘I am sleepy’

There are some surprises, however. With number-suppletive motion themes we find that intransitive themes for singular actor may have corresponding intransitive, objective, or du-objective themes for plural actor:

(9a) Intransitive theme *S-∅-gud** ‘S walks, goes on foot (alone)’

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[3] There is an important difference, however: in Tlingit, the valence category is lexically fixed, whereas in Acehnese, many intransitive verbs may take either agentive or nonagentive subject marking.

[4] The only exception to this generalization may be the theme *qu-S-ʒ-ti**‘ ‘S exists’, for which see below.

(9a) Intransitive theme _S-∅-ʔad*_ ‘S walks, goes on foot (in a group)’

(10a) Intransitive theme _S-š+D-xix*_ ‘S runs (alone)’

(10b) Objective theme _O-łu-∅-gu_G* ‘S runs (in a group)’

(11a) Intransitive theme _S-š-k’en*’_ ‘S jumps, hops (alone)’

(11b) Du-objective theme _O-ka-du-∅-k’en*’_ ‘S jumps, hops (in a group)’

For some of these there is a historical explanation; the theme _O-łu-∅-gu_G* (objective) ‘plural O run’ is analyzable as _O-S-∅-gu_G*(transitive) ‘S moves elongated O end forward’ with incorporated inalienable noun _łu-_ ‘end, point’, hence originally ‘(impersonal S) moves point of elongated O end forward’; this evokes the elongated ovoid shape characteristic of a group running. Inalienable nouns take their possessors with them when incorporated, and these are realized as objects; hence the resultant verb is objective rather than intransitive.

Furthermore, a few non-transitive verbs of state are unexpectedly intransitive rather than objective:

(12) Theme _ʔa-u-S-s+D-ka‘_ ‘S is lazy’

(13) Theme _ʔa-ka-ʉ̆-S-ł+D-x̣í·ƛ’_ ‘S is afraid’

(14) _ÿa‘#qu-š-u-S-s-ge·_ ‘S is wise’

(15) _qu-S-s+D-ti*‘_ ‘S exists, comes into being; lives, is born’

There is a handy historical explanation for these cases, however. They all contain thematic _ʔa-_ or _qu-_, both elsewhere analyzable as fossilized object pronominals: _ʔa-_ ‘indefinite human’ and _qu-_ ‘areal’ (see 4.1.6.1). Since these prefixes occupy the object slot in the verb template, inflection with object pronominals is not possible for these themes; inflection is therefore accomplished with subject pronominals instead of object pronominals.[5]

Antipassives of transitive themes are here treated as transitive verbs with non-referential indefinite object pronominals, either productive *ʔad-* 'something' or non-productive *ʔa-* or *+D-*; for further discussion and examples see 4.1.6.1.

3.1.2. Argumental derivational strings

Argumental derivational strings are of two types, those that affect the valence of the verb, and those that qualify or place a selectional restriction on the object of the verb. The former are unquestionably derivational, but the latter, particularly classificatory strings, seem close to being inflectional.

Tlingit has at most two valence-affecting strings. The first of these is the CAUSATIVE string *S-s-*.[6] This string adds an agentive subject corresponding to the semantic causer. If the verb is objective, the object remains unaffected, as seen in (16); but if intransitive or transitive, the matrix ('upstairs") subject displaces the embedded ('downstairs') subject. With intransitive verbs, the embedded subject becomes the object of the causative verb, as in (17); but with transitive verbs, it appears as the object of the postposition *PO-x'*, as in (18).

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[5] In terms of Autolexical Syntax, these are cases where there is a mismatch between the semantics and the morphology; as usual, the morphology wins out.

[6] *s-* stands for a classifier of the s-series or the ł-series; for discussion see 4.1.1.3. In valence-affecting derivatives, *s-* supplants not only the series of original theme but also the D-component; in object-qualifying derivatives, on the other hand, the D-component of the original theme is retained.

(16a) Theme *S-∅-nug•* 'S sits down',

(16b) Causative *O-S-s-nug•* 'S causes O to sit down; S seats O'

(17a) Theme *O-d-xʷeλ•* 'O becomes tired',

(17b) Causative *O-S-ɬ-xʷeλ•* 'S tires O'

(18a) Theme *O-S-∅-x̣a•·* 'S eats O',

(18b) Causative *PO-x' O-S-s-x̣a•·* 'S causes PO to eat O'

The Instrumental string *PO-ǯ s-* is formally similar to the causative. It adds an instrumental argument, which is marked by the Ergative postposition -ǯ. Although this instrumental argument is not a core argument in the syntax, one might argue that it is semantically analogous to one.[7]

(19a) Theme *O-S-∅-ǯaɢ•* 'S kills O'

(19b) Instrumental *PO-ǯ O-S-ɬ-ǯaɢ•* 'S uses PO to kill O; S kills O with PO'

The Self-benefactive string *ga-(+D)* does not clearly fit in any of the categories proposed here, yet here seems to be the best place to mention it. It adds to the verb the idea of acting for the benefit of oneself. Semantically, then, this string refers to a recipient, but this recipient is not a core argument. Nor indeed does this string add an argument of any kind; the recipient is understood to be identical with the subject.

(20a) Theme *O-S-s-ˀi•·* 'S cooks O'

(20b) Self-benefactive *O-ga-S-s+D-ˀi•·* 'S cooks O for self'

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[7] That is, it may be treated semantically as the argument of a function meaning 'to use'; see Lakoff 1968.

There are two subtypes of object-qualifying strings: those that classify the object of the verb, and those that quantify it. The CLASSIFICATORY STRINGS are listed below, for further discussion and exemplification see 4.1.5.

s- ‘extended/complex object: (extended) pole, rib, rope, hair, seaweed, mammal flesh, bag or object in bag; (complex) axe, anchor, halibut hook, ladder, broom, gun, piece of furniture, appliance’[8]

ka- ‘small round object: berry, roe, bead, ring’

ka-s- ‘small round extended/complex object: (extended) short stout stick, gun; (complex) string of beads, roe on branches’

ǯi-(ka-)s- ‘extended object: pole, rope, wave’

*wa*ɢ*-ka-* (rare) ‘circular object: ring, hoop’

*s’a*ɢ*-ka-* (rare) ‘standing vessel’

ša- (rare) ‘prominence: mountain, multistory building’

x̣’e- ‘viscous liquid: oil, honey’

There are two virtually homonymous quantifying strings, which specify that all or much of the object is affected by the situation denoted by the verb. These are unique among derivational strings in that they are marked for aspect, and thus are simultaneously argumental and aspectual.[9] Like other aspectual derivational strings, they are restricted in that they do not occur with Stative themes. The most common such string is the Exhaustive string *ÿax̣#ÿa-s-* (Ø-aspect) 'affecting all/much/many O'; for further discussion and exemplification see 6.6 and 6.7.4.

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[8] The extended and complex categories are distinguished by the selection of classificatory stem: the extended category occurs with *-ti*‘*, and the complex category with *-tan**.

[9] The morphological makeup of these strings reflects their dual nature: the component *ÿa-(u·-)* is elsewhere found only in aspectual derivational strings (see 7.2.1.1.5-6), and *s-* is elsewhere found only in argumental derivational strings.

(21a) Theme *O-S-∅-ˀus'** (na-aspect) 'S washes O'

(21b) Exhaustive *ÿax̣#O-ÿa-S-ł-ˀus'** (Ø-aspect) 'S washes all/much/many O'

3.1.3. Argumental inflection

There are two types of argumental inflection: quantification and pronominal inflection. Tlingit has two morphemes which indicate that a third person argument is plural:

Distributive prefix: *daɢa- ~ dax̣-*

Animate pluralizer: *has-*

Despite the fact that *dax̣-* and *has-* occupy the same position in the template, there are semantic and syntactic differences between them, the most important being that *dax̣-* pluralizes only the absolutive argument of the verb, whereas *has-* pluralizes any third person animate pronoun, including the object of a postposition or noun; for details see 4.1.7.

These inflectional quantifying strings are semantically similar to the derivational quantifying string *ÿax̣#ÿa-s-* introduced above, but there are important differences. As illustrated by (22), the derivational quantifying string is not restricted

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Diachronically, too, *ÿax̣#ÿa-s-* is derived from *PO-x̣#ÿa(u·-)s-* 'affecting all/much/many O along PO'; the original meaning seems to be 'going/proceeding from one O to another along PO', which fits those of other aspectual strings. Compare also the Athabaskan distributive and/or multiple metaaspects, which in some languages exhibit similar characteristics (see Leer 1978 and Kari 1979:95ff.).

so that it quantifies only a third person argument, as are the inflectional quantifying strings.

(22a) Theme *O-S-∅-ʒa*ɢ* (0-aspect, Processive) ‘S kills O’

(22b) *ˀa‘waʒá*ɢ ‘he/she/it killed it/him/her’

(22c) *dax̣-ˀa‘waʒá*ɢ ‘he/she/it killed them (inanimate)’

(22d) *has-ˀa‘waʒá*ɢ ‘he/she/it killed them (animate); they (animate) killed him/her/them’

(22e) *ha‘-ˀuwaʒá*ɢ ‘he/she/it killed us’

(22f) **dax̣-ha‘-ˀuwaʒá*ɢ

(22g) *has-ha‘-ˀuwaʒá*ɢ ‘they (animate) killed us’

(22h) Exhaustive *ÿax̣#O-ÿa-S-ł-ʒa*ɢ* (0-aspect) ‘S kills all/much/many O’

(22i) *ÿax̣#ˀaÿawłiʒá*ɢ ‘he/she/it killed them all’

(22j) *ÿax̣#ha‘-ÿawłiʒá*ɢ ‘he/she/it killed us all’

Furthermore, the derivational quantifying string affects the aspectual category of the verb; it occurs only with Processive themes and not with Stative themes, as seen by comparing (22h) and (23e). The inflectional quantifying strings, on the other hand, can occur--and *has-* MUST occur--wherever there is a plural argument available for quantification.

(23a) Theme *O-S-s-x̣án* (ga-aspect, Stative) ‘S loves O’

(23b) *ˀasix̣án* ‘he/she loves it/him/her’

(23c) *dax̣-ˀasix̣án* ‘he/she loves them (inanimate)’

(23d) *has-ˀasix̣án* ‘he/she loves them (animate); they (animate) love him/her/them’

(23e) (Exhaustive lacking) **ÿax̣#O-ÿa-S-s-x̣án*

The pronominal system is summarized in Figure 10.

Figure 10. The pronominal system

	SUBJECT	OBJECT			INDEPENDENT
		VO	NO	PO[10]	
1.sg.	*x̣a-*	*x̣ad-*[11]	*ʔax̣-*	*x̣a-*	*x̣ád*
1.pl.	*tu·-*	*ha‘-*	*ha‘-*		*ʔuhá·n*
2.sg.	*i·-*	*ʔi-*	*ʔi-*		*waʔé*
2.pl.	*ÿi-*	*ÿi‘-*	*ÿi‘-*		*ÿi‘h(ʷ)á·n*[12]
3.rec.	--	*ʔa-* ~ *∅-*[13]	*ʔa-*	*ʔa-*	--
3.neu.	*∅-*	*ʔa-* ~ *∅-*	*du-*	*ʔu-*	*hú*
3.sal.	--	*ʔaš-*	*ʔaš-*		--

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[10] Postpositional objects are analytically formed by adding the nominal object (possessive) prefix to the base *ʔi-*. Some pronominals have special (older) postpositional object bases that can be used in place of the (more common) analytic form, e.g. the older form *x̣a-* may be used instead of *ʔax̣-ʔi-*; the special bases are listed here. Note, however, that *?*ʔa-ʔi-* is not used by conservative speakers; *ʔa-* occurs instead. (The form *ʔa-ʔi-* is rarely attested in reference to an animate salient PO.)

[11] Also *ʔax̣-* preceding incorporated inalienable nominals or prefixes homophonous with them; see 2.5.

[12] Other dialect variants are *ʔi‘wá·n* and *ʔi‘ÿá·n*.

[13] The allomorph *ʔa-* occurs where the subject is also third person definite and there is no preceding ergative NP (marked with -ǯ); elsewhere ∅-occurs.

	SUBJECT	OBJECT			INDEPENDENT
		VO	NO	PO	
Reflex.[14]	--	*š-* ~ *∅*[15]	*čuš-*		--
Recipr.[16]	--	*wu‘š-*[17]	*wu‘š-*[18]		--
Indef.					
human	*du-*	*qu-*[19]	*qa‘-*	*qu-*	--
non-human	--	*ʔad-*	*ʔad-*		--
Partit. (*ʔa‘-*[20])		*ʔa‘-*	--		--

---

[14] The reflexive pronominals require the addition of the D-component of the classifier; see 4.1.1.2.

[15] The allomorph *∅-* occurs preceding an incorporated inalienable noun. Elsewhere *š-* is usual, although occasionally one finds *čuš-* in songs.

[16] The reciprocal pronominals require the addition of the D-component of the classifier, provided that the reciprocal pronominal is coreferential with the subject; see 4.1.1.2.

[17] The allomorph *wu‘ǯ-* is usual for most speakers before the pluralizer *has-*.

[18] This seems to vary more or less freely with *wu‘ǯ-* for some speakers.

[19] *qa‘-* preceding incorporated inalienable nominals and optionally before prefixes homophonous with them; see 2.5.

[20] The order +6 object prefix can be used to specify a partitive subject as well as a partitive object; see 4.1.6.1.

3.2. Oblique argument categories

Oblique arguments are syntactically postpositional objects. We have already mentioned the INSTRUMENTAL ARGUMENT (*PO-ǯ*) introduced by the Instrumental derivation and the EMBEDDED AGENT ARGUMENT (*PO-x'*) introduced by the Causative derivation, in 3.1.2. Another minor type of oblique argument is the COPULAR ARGUMENT (*PO-x̣*), which occurs with the copula and its semantic kin:

*PO-x̣ O-s-ti**' 'O is PO'

*PO-x̣ O-S-ł-yex̣** 'S makes O (into) PO'

*PO-x̣ O-u-S-Ø-ǯi**''S thinks that O is PO'

3.2.1. The manner argument

A number of high-frequency themes require a MANNER ARGUMENT, which may have the form of either a postpositional phrase or an adverb (which we may regard as constituting an unanalyzable postpositional phrase in the syntax).

*MANNER O-Ø-ti**"O is (so)'

*MANNER O-Ø-ni**"it happens (so) to O';

Causative: *MANNER O-S-s-ni**' 'S does (so) to O'

*MANNER qu-S-Ø-nigʷ/nug** 'S does, behaves (so) (with control)'

*MANNER S-s+D-gid** 'S does, acts (so) (without control)'

*MANNER ÿa-S-Ø-qa**·'S says (so)';

Transitive: *MANNER O-ÿa-S-s-qa**· 'S says (so) to O'

The manner arguments are listed here; note that not all these arguments may occur with a given theme.

wá’#sá ‘how?’

yé’(#) ‘thus’

yú’ ‘thus (as has just now been demonstrated, gestured, or spoken)’[21]

PO ÿáx̣ ‘like PO, in accordance with PO, as much as PO’;

  NO x̣’a-ÿáx̣ ‘in accordance with what NO has said’

PO ÿá’náx̣ ‘more than PO’

PO qín ‘less than PO’

PO-ɢa‘ ‘distributed over PO, appropriate to PO’; *NO-tú·-ɢa‘* ‘pleasing to NO’s mind, suitable to NO’; *NO-ǯi‘-ɢá·* ‘enough for NO to have/use’; *NO-x̣’é·-ɢa‘* ‘enough for NO to eat/drink’, etc.

ɢa‘# ‘enough, acceptably’

A major source of verb bases requiring manner complements is the Comparative derivational string *MANNER ka/ga-ŭ-*, which is added to a subset of Stative themes denoting a quantifiable physical attribute. Such themes are called Dimensional themes (see 7.1.2.2 and 7.2.3). The Comparative is unique in that although it does not change the aspectual class of the theme to which it is added, it does affect the choice of Imperfective type.[22]

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[21] Thus, for example, *yé’#x̣’aÿaqá* ‘he/she says thus’ may be used either before or after a quote, whereas *yú’ x̣’aÿaqá* is appropriate only immediately following the quote.

(24a) Theme *O-∅-ÿat'** 'O is long'

(24b) *ÿaÿát'* 'it is long'

(24c) Comparative *MANNER O-ka-ū-∅-ÿat'** 'O is (so) long'

(24d) *wá'#sá ku'wá·t'* 'how long is it?'

(24e) *yé' ku'wá·ṭ'* 'it is so long'

(24f) *ˀa-ÿáx̣ ku'wá·t'* 'it is as long as it'

(24g) *ˀa-ÿá'náx̣ ku'wá·t'* 'it is longer than it'

(24h) *ˀa-qín ku'wá·t'* 'it is shorter than it'

(24i) ɢ*a' ku'wá·t'* 'it is long enough'

(24j) *ˀax̣-tú·*ɢ*a' ku'wá·t'* 'it is long enough to suit me'

3.2.2. The local argument

Perhaps the most important class of oblique argument is the LOCAL ARGUMENT. Local arguments are introduced exclusively by aspectual derivational strings, which typically consist of a local argument plus an associated aspectual category. Like manner arguments, local arguments may have the form of either a postpositional phrase or an adverb (often an incorporated adverb). The meaning of the local argument depends not only on the postposition (or adverb) but on the aspectual category with which it is associated. The postposition *PO-d* affords an extreme example of polysemy:

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[22] Most Athabaskan languages have a Comparative derivational string that requires a different stem from the underived theme.

(25a) Theme *O-∅-da**· 'O flows'

(25b) Aspectual derivational string *PO-d* (with Positional Imperfective) 'located at PO':

ˀá-d dé·n 'it (body of water) is located there'

(25c) Aspectual derivational string *PO-d* (with 0-aspect) 'arriving at PO':

ˀá-d ˀuwadá· 'it (tide) reached there'

(25d) Aspectual derivational string *PO-d* (with na-aspect) 'moving about PO':

ˀá-d wu'da' 'it (tide, river) is flowing about (here and there)'

The category of Motion themes is here defined in terms of lexical aspect; Motion themes have no intrinsic lexical aspect, but derive their aspect from aspectual derivational strings. All Motion bases therefore must always contain a Motion theme combined with an aspectual derivational string. Conversely, most aspectual derivational strings occur exclusively with Motion themes. Moreover, with only one or two exceptions, all aspectual derivational strings contain local arguments. There is therefore a very close relationship between local arguments and Motion themes. As a rule, local arguments are restricted to occurrence with Motion themes, and in cases where a local argument occurs with a theme that is ordinarily a non-Motion theme, this theme takes on the formal and semantic characteristics of a Motion theme, as illustrated by (27c).[23]

(26a) Theme *O-S-s-ˀin** (Motion) 'S handles O (object in vessel)'

(26b) Aspectual derivational string *PO-d* (with 0-aspect) 'arriving at PO', where PO is *NO-ǯi'* 'NO's possession': *ˀax̣-ǯi'-d saˀin* 'give it to me!'

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[23] This situation is similar to the case where an English stative verb takes on the characteristics of an active verb when used in the Progressive; the Progressive aspect may be thought of as converting the stative verb into an active verb.

(27a) Theme _MANNER O-ÿa-S-s-qa*‘_ (na-aspect) ‘S says to O’

(27b) _yé’#ÿanasqá_ ‘tell him/her so!’

(27c) _ˀax̣-ǯi‘-d ÿasaqá_ ‘bequeath it to me!’

If a non-Motion theme is paired with a suppletive Motion theme, the latter must be used with local arguments, as illustrated by (29b).

(28a) Theme _yu‘#x̣’e-S-∅-tan*_ (0-aspect) ‘S talks’

(28b) _yu‘#x̣’atán_ ‘talk!’

(28c) _*ˀax̣-ǯi‘-d yu‘#x̣’atán_

(29a) Theme _x̣e-∅+D-tan*_ (Motion) ‘S talks’

(29b) _ˀax̣-ǯi‘-d x̣’i‘datán_ ‘call me (on the phone)!’

It is possible to interpret this set of facts as resulting from the interaction of two principles:

> (30) Local arguments are components of aspectual derivational strings and occur only with Motion themes.
>
> (31) If a non-Motion theme is not paired with a distinct Motion themes, it may be converted into an isomorphic Motion theme when it occurs with an aspectual derivational string.

3.3. Schetic categories

Schetic categories may simply be defined as the non-argument categories of the verb. These are usually referred to in the literature by hyphenated terms or acronyms thereof, most commonly as tense-mood-aspect or TMA categories: aspect, tense, modality (or status), mood, and polarity. I propose the term SCHESIS (adj.

SCHETIC) as a compact and lexically canonical name for this superordinate verbal category.

Part of the reason these categories have not traditionally been subsumed under a single rubric is that it has proven difficult for linguists to specify just how these categories are related to one another. Nevertheless, the numerous attested synchronic interdependencies and diachronic transitions linking these various categories makes it difficult to treat them independently of one another, and has given rise to the common intuition among linguists that these categories are semantically interrelated. The link between aspect and tense, for example, is illustrated by the overlap between perfective aspect and past tense found in Tlingit, among other languages (see 8.2.1.2 and Comrie 1976:78ff.).

An example of the overlap between tense and modality is provided by the Tlingit Future (see 8.2.1.4). Its fundamental denotation is future tense, as in (32b), but in certain contexts, it is used for prescriptive commands and exhortations, or statements expressing what will be possible under some circumstance, as in (32c).

(32a) Theme *S-Ø-gud** 'S walks, goes on foot (alone)'

(32b) *kuqagú·d* (Future) 'I will go, am going to go'

(32c) *gaGi·gú·d* (Future) 'you will go, are going to go; you must go, are to go; (in that case) you can go'

(32d) *kuqagu'dı·n* (Decessive Future) 'I was going to go'

These are usually considered to belong to the realm of modal categories: according to Chung and Timberlake (1985), commands and exhortations are classified under deontic mode, and possibility under epistemic mode. I would argue that the Tlingit

Future acquires these connotations by conventional implicature. Tlingit lacks direct equivalents for the categories of prescriptive commands and statements of feasibility, and since they may be roughly classified as future situations that are considered likely to transpire, the Future is allowed to subsume them. Thus I maintain that the Future is essentially a tense category but that in certain contexts it can have modal connotations.

Example (32d) illustrates a slightly different fact about the Future, namely that the future is evaluated according to the speaker's knowledge of intention, cause and effect, etc. Thus (32d) means that the speaker was intending to go at some time in the past and therefore could truly say (32b) 'I'm going to go' at the time; the fact that his intentions subsequently changed does not alter the truth of the future situation embedded in the past. Here again, intentionality is not regarded as a tense category, but may be assumed to be imputed by conventional implicature. In general, then, we will find it useful to claim that a given schetic category has a single core meaning from which secondary meanings can be derived by conventional implicature. The problem, of course, rests in determining which meaning is basic, and which are secondary.

Another fact about schetic systems in general is that aspect, tense, and mood are not always as neatly sequestered in the formal system of the language in question as they are by logicians. In Tlingit, for example, the categories in the largest formal grouping, here called MODE for lack of a better term, semantically involve almost every type of schetic category: mood, modality, tense and aspect.

Categories semantically defined as aspectual are distributed among three separate formal groupings: dynamicity and boundedness are involved in LEXICAL ASPECT; progressivity and iterativity are realized as EPIASPECTS, and perfectivity and habituality as MODES.

I should explain the use of the term FORMAL SYSTEM at this point. By this I refer to categorization of the system not simply in terms of the morphological makeup of schetic categories but by means of combinatoric analysis of the morphological system as a whole. This is achieved by resolving the system as a multidimensional matrix. Simply put, categories that are mutually exclusive belong to the same dimension of the matrix, and those that can combine with each other belong to different dimensions.

In the Athabaskan languages, for example, the Imperfective, Perfective, Future, and Optative modes constitute a category by virtue of being mutually exclusive. In most northern Athabaskan languages, the Customary category can combine with these modes and so constitutes a separate formal dimension of the schetic system. The Navajo Usitative is cognate with the Customary Imperfective in these languages and synchronically has Imperfective prefix morphology, but Navajo lacks a Perfective Usitative, Future Usitative, and Optative Usitative; therefore the Usitative does not constitute a separate formal dimension in Navajo, but is numbered among the modes.[24]

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[24] I have simplified the picture somewhat. The Navajo Usitative is actually the reflex of the Proto-Athabaskan Customary Imperfective with the Iterative prefix.

It is important to note here that the Athabaskan modes do not constitute a natural category in terms of either their morphological components or their semantic components. Semantically, for example perfectivity and habituality are considered aspectual categories, futurity is a tense category, and optativity is a modal category. Moreover, the difference between the formal classification of the northern Athabaskan Customary and the Navajo Usitative does not imply a difference in their respective morphological or semantic properties. It simply reflects the difference in the combinatorics of the two systems.

Combinatoric analysis is such an obvious and elementary logical tool that its use seems to have gone largely unremarked among linguists. Furthermore, the results of combinatoric analysis in many cases coincides with the results of morphosyntactic analysis and/or semantic analysis, so that the describer may feel no need to emphasize the distinction among them. In the Na-Dene languages, however, these criteria frequently point in different directions, so that different observers have come to very different conclusions about the nature of the schetic systems based on unspoken assumptions about what the analysis is to be based on.

My description of the Tlingit schetic categories differs fundamentally from that of Naish and Story (1966), precisely because my categories are based primarily on the combinatorics of the morphological strings and secondarily on the semantics and syntactics, whereas those of Naish and Story are based primarily on the morphology per se. In particular, Naish and Story's major three-way division of verbal forms into 'paradigms' is based exclusively on the distribution of two morphemes: paradigms that contain the perfective prefix *ÿu-* are 'perfective'; paradigms that contain the prefix ɢ*a*- are 'imperfective'; and paradigms that contain neither are 'non-perfective' (see S66:189, 210, 218, 244). Although it is true that the prefix *ÿu-* is confined to the Perfective mode, ɢ*a*- is shared by the Future, Potential, Hortative, and Contingent modes, which simply do not form a natural group by any other criteria, whether combinatoric, semantic or syntactic.[25] My analysis therefore does not agree with theirs on this point, and my use of the term 'imperfective' is quite different from theirs, conforming as it does with the generally agreed-upon usage in the schetic literature.

Note that the domain of the formal system as defined here is restricted to categories defined by morphological make-up. In some cases it is useful to extend the system by including syntactic information as well. For example, the Prohibitive-Optative epimode is defined mainly by the occurrence of the suffix -*i*'ɢ ~ -ɢ. A Prohibitive-Optative form may function semantically as either a prohibitive or an optative, depending on the clause-initial particle occurring with the form: *ƛi#ł* or *ƛé·ł* for prohibitive but *guˀa'#ł* for optative. In such cases I note the relevant syntactic information, but the formal classification per se (in this case Prohibitive-Optative) is based solely on the combinatoric analysis of the morphological structure, without reference to the syntax.

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[25] An analogous analysis for Athabaskan would be one where paradigms containing PA *ẏə- < **ɢə- are treated as forming a class: the Progressive Imperfective, the ẏə-Perfective, the Future, and conceivably also the Optative (in case the linguist-observer analyzes it as containing this prefix). Here again, these do not form a natural category by any other criteria.

In this work I therefore attempt to distinguish carefully the morphological makeup of the inflectional schetic categories, the formal system based on combinatoric analysis of the morphological system, and the semantic system. I have also taken care to show how these systems map one onto the other. An interesting result of this approach is the discovery that the mapping between the formal system and the semantic system is quite straightforward, as shown in sections 8.1.3 and 8.2.4. The mapping between these and their component morphemes, on the other hand, is replete with quirks and oddities, for many of which I suspect it will be difficult to provide an explanation, even a diachronic one.[26]

I will therefore take the formal schetic system to be the primary object of description and analysis. Following Comrie (1976, 1985), the names of language-specific formal categories will begin with capital letters, so as to ensure that they are distinguishable from the terminology used for semantic categories. These formal schetic categories fall into two groups: LEXICAL ASPECT, which is either inherent in the verb theme or introduced by an aspectual derivational string; and INFLECTIONAL SCHETIC CATEGORIES, which form a six-dimensional system:

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[26] The principle of templatic attraction discussed in section 4 is no doubt responsible for much of the confusion: originally similar but distinct morphemes have doubtless ended up becoming identical or nearly identical in shape and occupying the same position or contiguous positions in the verb template. It is therefore not safe to assume that morphemes with (nearly) the same shape but different functions are 'the same', especially historically.

Lexical aspect

- Aspectual marking
- Primary imperfective type

Inflectional schetic categories

- Epiaspect
- Mode
  - Mood and matrix tense
  - Aspect and (embedded) tense
- Epimode
- Status
- Clause type

Among the inflectional schetic categories, the category of modes is the most complex and variegated. As in Athabaskan, this category is semantically heterogenous, involving in fact almost all semantic types of schetic categories: mood, modality, tense, and aspect. Moreover, mode is itself two-dimensional. This is because Tlingit has both simplex modes formed with inflected verbs, and composite modes formed with inflected verbs followed by auxiliary verbs which are themselves inflected for mode. The modes will be further discussed in 3.3.2.2.

3.3.1. Lexical aspectual categories

Lexical aspect categories are described and illustrated in detail in chapter 7; the essential features are summarized here. Two types of information are needed in order to specify fully the lexical aspectual category of a verb theme. First is aspectual marking. Themes that lack inherent aspectual marking are Motion themes. All other themes have aspectual marking that shows up in several guises: in most modes as a four-way choice of aspect prefix, in the Progressive and Future as a three-way choice of aspect proclitic, and in the Perfective and certain other modes as a two-way choice of stem variants. The maximum number of aspectual categories is indicated by the choice of aspect prefix, so these are used as aspectual category labels.

Label	**Ø**	**na**	**ɢa**	**ga**
Aspect prefix	*Ø*	*na-*	*ɢa-*	*ga-*
Aspect proclitic	*Ø ~ ÿa‘*	*Ø ~ ÿa‘*	*ye‘#*	*ke‘#*
Stem variants	Telic	Atelic	Atelic	Atelic

Figure 11. Aspectual categories

The second type of lexical aspectual specification is whether the theme takes a primary Imperfective, and if so, which type(s). Imperfectives that form part of the primary, i.e. non-aspectually-marked, paradigm are called primary Imperfectives. These denote simple continuous situations, situations that are not progressive nor positional nor extensional. Secondary Imperfectives, on the other hand, either form the basis of a secondary, aspectually-marked paradigm, or have no associated paradigm. These may be Iterative-type, which necessarily denote discontinuously recurring situations, Progressive, Positional, Extensional Stative, or Multiple-positional Stative. Motion themes lack primary Imperfectives, as do themes denoting events; the latter are called Eventive themes. Themes that take primary Imperfectives are further subclassified according to whether their primary Imperfective is Stative or Processive. For further discussion of lexical aspectual categories see chapter 7.

These types of lexical aspectual information are given in parentheses following the theme. Motion themes are so designated.

(33) *S-∅-gud** (Motion) ‘S walks, goes on foot (alone)’

For all other themes, the aspect prefix is given, followed by the non-predictable Imperfective type(s) that occur with the theme. The name of the Imperfective type is designated by a hyphenated label composed of the suffix or infix added to form the Imperfective stem followed by an abbreviated name specifying primary Imperfective type (Process., Stat., Pos.) or the secondary Imperfective type (Iter., Mult.-iter.). These are fully described in sections 6 and 7.

(34) *O-S-ł-yex̣** (0: ·-Process.) ‘S makes O’

Imperative *łayéx̣* ‘make it!’

Primary Imperfective *x̣ałayé·x̣* ‘I’m making it’

(35) *O-ka-∅-čux̣ʷ* (0: ‘-Process.) ‘S kneads, massages O’

Imperative *kačux̣ʷ* ‘knead it!’

Primary Imperfective *kax̣ačix̣ʷ* ‘I’m kneading it’

(36) *O-S-∅-ʔus’** (na: gʷ-Process.) ‘S washes O’

Imperative *naʔú’s’* ‘wash it!’

Primary Imperfective *x̣aʔús’gʷ* ‘I’m washing it’

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(37) *O-S-∅-ši·‘* (ga: ’-Process.) ‘S sings O’

Imperative *gaši* ‘sing it!’

Primary Imperfective *x̧aši* ‘I’m singing it’

(38) *O-ɬ-ge·‘* (na: ÿ-Stat.) ‘O (animate, extended) is big’

Imperative *ʔi-naɬgé* ‘become big!’

Primary Imperfective *x̧ad-ɬigé·* ‘I am big’

For themes with invariable roots, the ·-stem, ‘-stem, ’-stem, and ÿ-stem are indistinguishable from the root and thus from one another. Imperfectives with such stems are designated ‘root-Process.’ or ‘root-Stat.’

(39) *O-∅-ní·gʷ* (ga: root-Stat.) ‘O hurts, is in pain, is sick’

Imperative *ʔi-ganí·gʷ* ‘be(come) sick!’

Primary Imperfective *x̧ad-ÿaní·gʷ* ‘I am sick’

Perfective *x̧ad-wu’ní·gʷ* ‘I became sick, have become sick, was sick’

Non-Motion themes without primary Imperfectives are designated as Eventive. Eventive themes whose Perfective is equivalent in meaning to either the Imperfective or the Perfective of a Stative verb are called INVOLUNTARY EVENTIVE themes. In 3.1.1 we saw that the semantic basis of the Tlingit split intransitive system is agentivity; objective verbs are, as a rule, non-agentive, and vice versa. Single-argument Involuntary Eventive themes always refer to an event that happens to the referent of the argument, an event that is beyond the control of this referent; such themes are therefore always objective. Thus all objective Eventive themes are Involuntary Eventive themes, and do not need to be specially designated as Involuntary; an example is (41). Only a few Involuntary Eventive themes are transitive; these are designated ‘Invol. Event.’, as in (42).

(40) *O-S-∅-t'i‘/t'e‘* (ga: Event.) ‘S finds O’

Imperative *gat'i‘* ‘find it!’

(Primary Imperfective lacking)

Perfective *ʔx̣ʷa‘t'i‘* ‘I (have) found it’

(41) *O-d-šan** (0: Event.) ‘O (person) becomes old, gets gray hair’

Imperative *ʔi-dašán* ‘become old!’

(Primary Imperfective lacking)

Perfective *x̣ad-wudišán* ‘I am old, have become old’

(42) *O-S-s-ku*‘* (0: Invol. Event.) ‘S comes to know O, recognizes O’

Imperative *sakú* ‘know it!; recognize it!’

(Primary Imperfective lacking)

Perfective *x̣ʷasikú·* ‘I know/knew it, (have) recognized it’

How do these lexical aspect categories compare cross-linguistically? The distinctions based on primary Imperfective type correlate to some degree with the familiar Aktionsart categories. The distinction between stative and active verbs corresponds quite well with what we find in other languages. One rather unexpected quirk of the Tlingit system, however, is that Stative themes correspond to what semantic analysts have called ‘inchoatives’ as well as ‘statives’: the Imperfective of a Stative theme refers exclusively to a state, whereas the other modes may refer either to a state or a transition into a state, as seen in (38) and (39). Involuntary Eventives are semantically akin to Statives, but these refer exclusively to transition into a state and thus have no primary Imperfectives, as seen in (41) and (42).[27]

---

[27] The contrast between Stative and Involuntary Eventive verbs resembles closely that found between the Japanese categories called ‘Jootai-dooshi’ (‘Stative verbs’) and ‘Jootaihattatsu-dooshi’ (‘Stative-developmental verbs’) by Kindaichi (1950, cited

Stative themes tend to refer to states where it is difficult to locate a definite boundary in the transition from non-state to state; philosophers have referred to these as 'vague predicates' (see Dowty 1979:88ff.). Involuntary Eventive themes, on the other hand, refer to involuntary transitions resulting from an event, usually an event of a cumulative nature; here, the transitional boundary tends to be more or less clear. Some selected examples will suffice to illustrate the types of verbs found in each category.

Stative

*MANNER O-∅-ti**'(na) 'O is/becomes thus'

*O-∅-dał**(na) 'O is/becomes heavy'

O-∅-k'é·(ga) 'O is/becomes good'

O-∅-ní·gʷ(ga) 'O is/becomes sick, in pain; O hurts'

O-ł-ná·łx̣ (ga) 'O is/becomes wealthy'

O-S-s-x̣án (ga) 'S loves O'

PO-x' ʔa-ka-ŭ-S-ł+D-x̣í·ƛ'/x̣é·ƛ' (ga) 'S fears O'

O-S-∅-tí·n(ga) 'S has O in sight, sees O, can see O'

Involuntary Eventive

*MANNER O-∅-ni**'(na) 'O becomes thus'

*O-∅+D-xʷeλ**(0) 'O becomes tired, exhausted'

O-∅-šá'š (ɢa) 'O wears out, becomes worn out'

*O-∅-na**'(na) 'O dies, becomes dead'

---

in Martin 1975:273).

O-∅-wad'*(na) ‘O grows up, becomes adult’

*O-ka-∅+D-xiɬ'**(∅) ‘O becomes troubled’

*O-∅-x'an**(∅) ‘O becomes angry’

O-∅-ˀi·*(∅) ‘O cooks, becomes cooked’

*O-∅-xug**(∅) ‘O dries, becomes dry’

O-S-∅-ku'*(∅) ‘S comes to know O, realizes O’

*O-S-s-tin** (ɢa) ‘S catches sight of O, sees O’

In many cases the Causative derivative of an objective Involuntary Eventive theme has an Processive Imperfective, thus shifting to the Processive category.

(43a) Theme O-∅-ˀi*· (∅: Event.) ‘O cooks, becomes cooked’

(Primary Imperfective lacking)

Perfective *ˀuwaˀi·* ‘it has cooked, is cooked’

(43b) Causative *O-S-s-ˀi*·* (∅: ·-Process.) ‘S cooks O’

Primary Imperfective *x̣asaˀi·* ‘I am cooking it’

Perfective *x̣ʷasiˀi·* ‘I (have) cooked it’

(44a) Theme *O-∅-xug** (∅) (∅: Event.) ‘O dries, becomes dry’

(Primary Imperfective lacking)

Perfective *ˀuwaxíg* ‘it has dried, is dried, is dry’

(44b) Causative *O-S-s-xug** (∅: ‘-Process.) ‘S dries O’

Primary Imperfective *x̣asaxu‘g* ‘I am drying it’

Perfective *x̣ʷasixíg* ‘I (have) dried it’

The choice of aspectual marker correlates to some extent with the category of boundedness. Themes that take ∅-aspect are largely telic, and those that take the na-, ɢa-, and ga-aspects are atelic. I therefore use the terms TELIC and ATELIC synonomously with 0-aspect and non-0-aspect, even though these capitalized terms refer to lexicalized aspectual distinctions in Tlingit and cannot simply be equated with the non-capitalized terms.

In particular, Tlingit verbs do not change aspectual category depending on whether their object is referential. Thus they do not encode the contrast between what Chung and Timberlake call ‘atelic process’ and ‘telic process’ (1985:218, in Vendlerian terms ‘activity’ and ‘accomplishment’) in examples like the following:

(45a) Theme *O-S-∅-tiw•’* (na: ·-Process.)

(45b) *x’úx’ x̱ʷa‘ti’w*

(book I.read.3)

‘I read a book; I read (some) books’

(45c) *x̱ʷa‘ti’w wé x’úx’*

(I.read.3 that book)

‘I read the book(s)’

When the Telic-Atelic dimension of lexical aspect is compared with the Processive-Eventive-Stative dimension, one important distributional irregularity stands out: there are very few Telic Stative verbs (see 7.1.1.1). In other words, Stative verbs are in general inherently Atelic. This is hardly surprising, since states have no inherent boundaries (see Chung and Timberlake 1985: 214ff.). Otherwise, all possible combinations are found. The English glosses of selected themes of these non-Motion lexical aspectual categories are given in Figure 12.

TELIC

∅-Processive	**∅-Eventive**	**∅-Stative**
S makes O	S comes to know O	S hangs
S cooks O	S hears O	
S eats O	S kills O	
S urinates	O becomes tired	

ATELIC

na-Processive	**na-Eventive**	**na-Stative**
S tells O	it happens to O	O is (so) big
S washes O	(Caus. S does to O)	O is (so) far
S reads O	O dies	S thinks (so)
S dreams		
ɢa-Processive	**ɢa-Eventive**	**ɢ-Stative**
S asks O to come	S catches sight of O	weather is good
S combs O	S wears out	O is (so) deep
	S sits down	S exists
ga-Processive	**ga-Eventive**	**ga-Stative**
S sings O	S stands up	O is good
	S finds O	O is hot
		S can see O
		S loves O

Figure 12. Selected themes illustrating aspectual categories

3.3.2. Inflectional schetic categories.

3.3.2.1. Epiaspect

The inflectional schetic categories may be subdivided into the epiaspects on one hand, and all other categories on the other. The epiaspects are paradigmatic extensions of the Imperfective types that occur with a theme or base. As already noted, the choice of Imperfective type(s) that may occur with a given theme is in part unpredictable and must to this extent be lexically specified. Some Imperfective types (all Stative Imperfectives, ·-Processive Imperfectives, ’-Processive Imperfectives, and some ‘-Processive Imperfectives) can only occur only in the Imperfective mode. The rest of the Imperfective types can combine with the modes, so that they form a separate verbal paradigm. This is what I call an EPIASPECTUAL PARADIGM. With the theme O-S-ł-yex̣* (Ø: ·-Process., x̣-Iter.) ‘S makes ̣O’, for example, the primary Imperfective, which is ·-Processive, fills in the Imperfective mode of the Neutral epiaspect. The Iterative Imperfective, on the other hand, forms the basis of an entire Iterative epiaspectual paradigm.

Neutral epiaspect:

Imperfective: *x̣ałayé·x̣* ‘I am making it’

Perfective: *x̣^{w}ałiyéx̣* ‘I made it’

Future: *kuqałayé·x̣* ‘I will make it’

Potential: *q^{w}ałiye'x̣* ‘I may make it’

etc.

Iterative Imperfective epiaspect:

Imperfective: *x̣aɬayéx̣x̣* ‘I make it (repeatedly); I keep making it’

Perfective: *x̣ʷaɬiyéx̣x̣* ‘I kept making it’

Future: *kuqaɬayéx̣x̣* ‘I will keep making it’

Potential: *ˀunqaɬiyéx̣x̣* ‘I may keep making it’

etc.

Epiaspectual paradigms may be formed from (a) Progressive Imperfectives and (b) Iterative-type and Processive Imperfectives (other than those types mentioned above). Although it is possible for most types of Processive Imperfectives to form epiaspectual paradigms, forms from such paradigms are extremely rare. An example is provided by the theme *O-S-∅-qa*·* (∅: s’-Process., x̣-Iter.) ‘S sews O’.[28] Note here that the status of the primary Imperfective form *x̣aqé·s’* ‘I am sewing it’ is unclear. It can be regarded as the Imperfective mode both of the Neutral epiaspect and of the Processive Imperfective epiaspect. If the Processive Imperfective epiaspect is discounted in view of its marginal utility and low frequency of occurrence, it makes more sense to view *x̣aqé·s’* as the Neutral Imperfective.

Neutral epiaspect:

Imperfective: *x̣aqé·s’* ‘I am sewing it’

Perfective: *x̣ʷa‘qá·* ‘I sewed it’

Future: *kuqaqá·* ‘I will sew it’

Potential: *qʷa‘qa‘* ‘I may sew it’, etc.

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[28] WS maintains that there is no difference in meaning between the Neutral and the primary Imperfective metaaspectual forms. If there is a difference, it does not seem to be systematically exploited.

Processive Imperfective epiaspect (rare):

Imperfective: *x̣aqé·s'* ‘I am sewing it’

Perfective: *x̣ʷa‘qé·s'* ‘I sewed it’

Future: *kuqaqé·s'* ‘I will sew it’

Potential: *ʔunqa‘qé·s'* ‘I may sew it’, etc.

Iterative Imperfective epiaspect:

Imperfective: *x̣aqé·x̣* ‘I sew it (repeatedly); I keep sewing it’

Perfective: *x̣ʷa‘qé·x̣* ‘I kept sewing it’

Future: *kuqaqé·x̣* ‘I will keep sewing it’

Potential: *ʔunqa‘qé·x̣* ‘I may keep sewing it’, etc.

The most important and useful epiaspectual paradigms are therefore formed from the Progressive Imperfective and from Iterative-type Imperfectives (Iterative and Multiple-Iterative Imperfectives). For further discussion of the epiaspects see 6.5, 6.7.3, and 8.6.

3.3.2.2. Mode

The category of modes does not correspond to any single semantic schetic category, but has reference to categories traditionally known as mood, tense, and aspect. The modes are readily divisible into three superordinate categories: Declarative modes, Deontic modes, and Circumstantial modes. To some extent these superordinate categories correspond to what is traditionally referred to as mood: the Declarative modes are used to assert or question facts and possibilities, whereas the Deontic modes are used to assert or question requests and wishes. Relevant to this distinction, however, there is an important mismatch between the formal system of schetic categories and their semantic usage: Prohibitive-Optative forms of Declarative modes fit semantically with the Deontic modes (see 3.3.2.3).

The Circumstantial modes are inherently dependent; that is to say, clauses with Circumstantial verbs are typically heads of dependent clauses delimiting the time when the situation denoted in the main clause occurs.[29] In addition, however, Subordinative forms of Declarative modes are also dependent, functioning principally as complement clauses and objects of prepositions. Furthermore, the Hortative and Admonitive modes may occur with specified postpositions, in which case they form dependent clauses.

The above classification of the modal system is crosscut by a subdivision into tense-aspect categories. Evidence for this latter subdivision is provided by observation of complex sentences where a Circumstantial verb in the protasis (dependent clause) cooccurs with a Declarative or Deontic verb in the apodosis (main clause). In these constructions, the Circumstantial protasis functions semantically as a temporal adverbial specifying the pastmost limit of the time by which the situation denoted by the main clause is evaluated. Following are typical examples of such constructions.

(46) *neʻł#gú·d#áwé ʔad-x̣ʷaʻx̣á·*

(inside#when.3.came#FOCUS thing-3.ate)

'when he came in (Consecutive), he ate (Perfective)'

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[29] In Interior Tlingit, however, these are commonly found in narratives in a special construction with the particle *qaʻxʷá·*, where they are interpreted as dependent clauses; see 8.2.3.

(47) *ne‘ł#gúdni‘#ʔáwé ʔad-gu*ɢ*ax̣á·*

(inside#when.3.comes#FOCUS thing-3.will.eat)

‘when he comes in (Conditional), he will eat (Future)’

(48) *ne‘ł#gúdni‘#ʔáwé ʔad-*ɢʷ*a‘x̣a·*

(inside#when.3.comes#FOCUS thing-3.might.eat)

‘when he comes in (Conditional), he might eat (Potential)’

(49) *ne‘ł#gúdni‘#xʷán ʔad-*ɢ*ax̣a·*

(inside#when.3.comes#FOCUS thing-let.3.eat)

‘when he comes in (Conditional), let him eat (Hortative)’

(50) *ne‘ł#ʔi·gúdni‘#xʷán ʔad-x̣á*

(inside#when.2SG.come#FOCUS thing-2SG.eat)

‘when you come in (Conditional), eat! (Imperative)’

(51) *ne‘ł#*ɢ*agúďn#áwé ʔad-ʔux̣á·ÿʒ*

(inside#whenever.3.comes#FOCUS thing-3.eats)

‘when he comes in (Contingent), he eats (Perfective Habitual)’

Typically, then, the Contingent pairs with the Perfective, as in (1); the Conditional pairs with the Future, Potential, Imperative, and Hortative, as in (2)-(5); and the Contingent pairs with the Habitual, as in (6). Semantically, we will characterize these three groups of modes as PAST, FUTURE, and HABITUAL. It should be noted that these three tense-aspect categories characterize the three narrative sequence types discussed in 8.1.4.

The above thus suggests the following schema for classifying the simplex modes. The Realizational is omitted, since its semantics is not sufficiently well understood, but it can probably be grouped with the Perfective or the Imperfective.

Furthermore, this schema is defective insofar as Prohibitive-Optative Declarative modes form a natural semantic group with the Deontic modes, and that Subordinative Declarative modes and certain uses of the Hortative and Admonitive are syntactically dependent.

	INDEPENDENT		**DEPENDENT**
	DECLARATIVE	**DEONTIC**	**CIRCUMSTANTIAL**
Present	Imperfective		
Past	Perfective		Consecutive
Future	Future	Imperative	Conditional
	Potential	Hortative	
		Admonitive	
Habitual	Perfective Habitual		Contingent

Figure 13. Analysis of the simplex modes

This figure takes into consideration only the simplex modes. In addition to these, Tlingit has composite modes formed with an auxiliary verb that occurs in four modes: the Perfective Habitual, Consecutive, Conditional, and Contingent. All these auxiliaries may follow verbs in the Imperfective and Future modes, yielding semantically complex modes.[30] As I will show in section 8.2 (see especially 8.2.4), semantic analysis of the resulting modes reveals the following system:

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[30] In addition, the Circumstantial mode auxiliaries may follow a verb in the Consecutive, yielding a composite mode that is semantically equivalent to the simple Circumstantial mode.

	Perfective	**Imperfective**	**Future**	**Potential**
INDEPENDENT:				
DECLARATIVE:				
Neutral	Perfective	Imperfective	Future	Potential
Habitual	Perf. Hab.	Impf. Hab.	Fut. Hab.	
DEONTIC:			Imperative/ Hortative	Optative
CIRCUMSTANTIAL:				
Consecutive	Consecutive	Impf. Consec.	Fut. Consec.	
Conditional	Conditional	Impf. Cond.	Fut. Cond.	
Contingent	Contingent	Impf. Conting.	Fut. Conting.	

Figure 14. Analysis of the simplex and composite modes

The structure of this matrix implies the following analysis of the two dimensions that combine to form the system of modes:

Independent Dependent

Declarative Deontic Circumstantial

Non-habit. Habit. Non-habit. Habit.

Non-fut. Fut.

Non-future Future

Perfective Imperfective Actual Potential

Figure 15. Analysis of the mode categories

3.3.2.3. Epimode, status, and clause type

There are three EPIMODES: Assertive, Prohibitive/Optative and Decessive. The Assertive is unmarked. The Prohibitive/Optative combines with the Imperfective and Perfective modes. Negative Prohibitive-Optatives with the particles *ƛé·ɬ* and *ɬí#ɬ* are semantically prohibitives, functioning as the negative counterparts to Imperatives and Hortatives; and Prohibitive-Optatives with the particle *guˀa‘#ɬ* (which are also morphosyntactically negatives) are semantically optatives. The Prohibitive/Optative forms of the Imperfective and Perfective modes thus complement the Deontic modes.

The Decessive epimode combines with all the Declarative modes (except for the Realizational). The resulting forms denote that the situation denoted by the embedded Declarative mode was valid in the past and has subsequently become invalid. The metamodes are further discussed in 6.3 and especially in 8.3.

There are two STATUSES: Realis and Irrealis. Morphologically contrastive Realis and Irrealis forms exist for all Declarative and Circumstantial modes except for the Potential. As for the Deontic modes, the Imperative and Hortative are inherently Realis, and the rest are inherently Irrealis. The Irrealis form of the verb is required with a small number of particles and clitics: negative *ƛé·ɬ~ɬ*, dubitative *gʷáɬ*, and presumptive *#gí-DEM*. The Realis form is unmarked. The statuses are further discussed in 6.3 and 8.4.

With the Declarative modes there is a four-way formal distinction between CLAUSE TYPES: Independent, Attributive, Subordinative, and Gerundive. The

Independent type is unmarked and occurs in finite independent clauses. The rest form dependent or non-finite clauses: the Attributive type forms relative clauses; the Subordinative forms subordinate clauses; and the Gerundive forms verbal nouns. These are further discussed in 6.4 and 8.5.

With two of the Deontic modes, the Hortative and Admonitive, there is a two-way formal distinction between Independent and Subordinative clause types (see further 8.2.2.2-3). The Subordinative clause type forms subordinate clauses of purpose. The Circumstantial modes form subordinate clauses that provide a temporal frame for the main clause (see further 8.2.3).

It can be seen by the above discussion that the various epimodes, statuses, and clause types are formally distinguished in certain modes but not in others. The following figure summarizes their ability to combine with the modes. Note that the composite modes occur in the same combinations as the simplex modes (Habitual, Consecutive, Conditional, and Contingent).

It is not possible to display in this figure the fact that the Prohibitive-Optative occurs only in the Irrealis. This is the only cooccurrence restriction between epimode and status. There are no cooccurrence restrictions between epimode or status on one hand and clause type on the other.

MODE	EPIMODE			STATUS		CLAUSE TYPE			
	Ass.	Opt.	Dec.	Real.	Irr.	Indep.	Attr.	Sub.	Ger.
DECLARATIVE									
Imperfective	x	x	x	x	x	x	x	x	x
Perfective	x	x	x	x	x	x	x	x	x
Realizational	x			x		x			
Future	x	x	x	x	x	x	x		
Potential	x	x		x		x	x		
Habitual	x		x	x	x	x	x	x	
DEONTIC									
Imperative	x			x		x			
Hortative	x			x		x		x	
Admonitive	x				x	x		x	
CIRCUMSTANTIAL									
Consecutive	x			x	x			x	
Conditional	x			x	x			x	
Contingent	x			x	x			x	

Figure 16. Combinatoric possibilities among formal categories.

CHAPTER 4

THE VERB COMPLEX

One of the best-known attributes of the Na-Dene phylum is the templatic structure of the verb complex. The nucleus of the verb complex is the VERB ROOT, which together with a modification of the root or root suffix(es) constitutes a VERB STEM. To the right of this stem may occur other suffixes or enclitics. To its left are prefixes, proclitics, and bound phrases.[1] The affixes and clitics are traditionally assigned to a potentially large number of position categories, which following Naish-Story I will call ORDERS.

I will use the following system for numbering the orders in the Tlingit verb complex. Order 0 is occupied by the verb root. Prefix orders are positively numbered, proceeding leftward from the root; suffix orders are negatively numbered, proceeding rightward from the root. Some of these orders must further be subdivided into suborders; these will be discussed below. For reference, I include their equivalents from Naish-Story.[2] Not all of the orders given here have Naish-

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[1] The lexical items discussed in this chapter are displayed for reference and will not necessarily be exemplified here. For exemplification and further discussion, the reader will be referred to the appropriate sections of chapters 4-6 of Story's thesis.

[2] Note that the Naish-Story unit order numbers (1-3) are used for 'theme' prefixes and the decade order numbers (10-120) for 'inflectional' affixes. Note also that they do not formally distinguish the root level, as I do.

Story equivalents, however, for the Naish-Story orders stop at the verb word boundary, whereas I consider not only affixes but bound phrases to belong to the verb complex.[3]

Order	**Naish-Story equivalent**
+8. Proclitic adjunct phrases	
+7. Number prefixes	
+6. Incorporated object pronominals and alienable nouns	
+5. Incorporated inalienable nouns	Order 1-3 thematic prefixes
+4. Schetic prefixes	Orders 40-70
+3. Distributive prefix	Order 30 (Distributive)
+2. Subject pronominals	Order 20 (Pronominal)
+1. Classifiers	Order 10 (Extensor)
0. ROOT	STEM
-1. Root suffix	
-2. Durative suffixes	
-3. Inner modal suffixes	Order 110
-4. Outer modal suffixes and the auxiliary	
-5. Epimodal suffixes	Order 120

Figure 17. The templatic orders

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[3] Note also that the Naish-Story word boundaries are different from mine. In particular, I treat order +6 and +7 elements as prefixes, whereas Naish-Story treat them as proclitics.

The labels given to some of these orders are somewhat approximate, describing what seems to be the core function of the elements in the group. Naish-Story call the prefixes of order +5 'thematic prefixes', but in fact thematic and derivational elements are scattered among orders +1, +4, +5, +6, +8, -1, and -2. I have therefore eschewed characterizing any particular order as thematic or derivational. I have instead chosen the above designation for order +5 prefixes to reflect the remarkable fact that virtually all of these are formally identical with incorporated inalienable noun stems.

The structure of the verb root can be represented by the formula CV(C(C)). Moreover, for invariable roots, we must specify the stigma of the root vowel; and for variable roots, the root type. The root plus an order -1 element (root suffix or modification) together comprise the verb stem.

The relative ordering of prefixes is determined by two principles. The first, which we call the PRINCIPLE OF TEMPLATIC ATTRACTION, has the effect that with few exceptions, prefixes of a given form occur in a constant order relative to one another. The principle of templatic attraction is stated in (1).

> (1) Where two or more functionally different prefixes are formally identical, they either occupy the same position or immediately adjacent positions. If two of them happen to cooccur, they either occur adjacent to each other--in which case their ordering with respect to each other is indeterminable--or telescope together into a single instance of this form.

The second is the INCORPORATE-BEFORE-THEMATIC PRINCIPLE, stated in (2).

(2) Incorporated nouns must occur to the left of all thematic prefixes.

Figure 18 summarizes the functions of the affixes and clitics of each order.

ORDER		**FUNCTION**	
	Thematic	**Derivational**	**Inflectional**
+8.	no	yes	no
+7.	no	no	yes
+6.	*qu- ʔa- ʔad-*	*qu- ʔa-*	all pronominals
+5.	most	*ka- ÿa- ša-* *ǯi- x̯'e-* et al.	no
+4.	*u- u·- ŭ- ga-*	*u·- ŭ-*	yes
+3.	no	no	yes
+2.	*du-*	no	yes
+1c. (series)	yes	*s-*	no
+1b. (+D)	yes	yes	yes
+1a. (+I)	no	no	yes
0. ROOT	yes	no	no
-1.	some	yes	no
-2.	some	yes	no
-3.	no	no	yes
-4.	no	no	yes
-5.	no	no	yes

Figure 18. Functions of templatic orders

4.1. Preradical elements.

4.1.1. Order +1: the classifier

The classifier can justly be termed the hallmark of the Na-Dene languages.[4] As Krauss (1969) has pointed out, the classifier systems of Proto-Athabaskan, Eyak, and Tlingit correspond closely, often in minute detail, as to their internal structure and function. The Na-Dene classifier had a tripartite structure, visible in Tlingit and Eyak and internally reconstructible for Proto-Athabaskan. Krauss calls the three components of the classifier the y-component, d-component, and ł-component. Adapting Krauss' terminology to Tlingit, I will refer to these as the I-component, the D-component, and the series component.[5] There are four series: the Ø-series, the ł-series, the s-series, and the š-series. Of these, the last three are exactly parallel and may together be referred to as the non-Ø-series. Each possible combination of these three components is fused into an inseparable portmanteau morpheme, so that the classifier system is best represented as a three-dimensional grid. Bowing to the exigency of the medium, however, I will display it as follows:

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[4] Naish-Story call this the 'extensor', but I revert here to Goddard and Sapir's original appelation.

[5] This terminology correlates with that of Naish-Story as follows: -D and +D classifiers are called 'odd extensors' and 'even extensors', respectively; -I and +I classifiers are called 'B-extensors' and 'A-extensors', respectively.

		-D			+D	
	(label)	**-I**	**+I**	**(label)**	**-I**	**+I**
Ø-series	(Ø-)	Ø-	ÿa-	(Ø+D-)	da-	di-
ł-series	(ł-)	ła-	łi-	(ł+D-)	ł-	λi-
s-series	(s-)	sa-	si-	(s+D-)	s-	ʒi-
š-series	(š-)	ša-	ši-	(š+D-)	š-	ǯi-

Figure 19. The classifiers

In citing verb themes, it is convenient to have cover labels for pairs of classifiers that differ only in whether they have or lack the I-component; these are given in parentheses above.

The following important morphophonemic rules involving the classifiers should be noted at this point:

(3) With the Ø-series, the D-component is deleted following the subject prefix *du-* 'indefinite human' (which otherwise requires the D-component).[6]

(4) The [-D,-I] forms of the non-Ø-series (*ła-*, *sa-*, *ša-*) are replaced by allomorphs without *a* (*ł-*, *s-*, *š-*) immediately following the order +4 prefixes *ÿu-*, *na-*, and *u-* (as well as the order +4 prefix *ɢa-* when this is word-initial), the order +3 prefix *daɢa-*, and the order +8 prefix *ʔa-*.[7]

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[6] The result, curiously, is that after *du-*, only the -D forms of 0-series occur, and only the +D forms of the non-0-series occur. See Story 1966:6.224

[7] See Story 1966:6.225.

(5) The s-series is replaced by the ƚ-series if the stem contains an obstruent member of one of the affricate series.[8]

4.1.1.1. Order +1a: the I-component

The I-component of the classifier is required in the Assertive Realis submode of certain modes: the Perfective, the Realizational, the Stative Imperfective, the Conative Imperfective, and the yu'#[I]g-Imperfective (see 6.1 and 7). It is also required in the Assertive submode (both Realis and Irrealis) of the Potential mode.[9]

4.1.1.2. Order +1b: the D-component

The D-component of the classifier occurs as a thematic element in intransitive themes, as well as the lone transitive theme *O-S-∅+D-na*'* (∅: '-Process.) 'S drinks O'.[10] It is also required with the indefinite human subject pronominal and the reflexive and reciprocal object pronominals--the latter only where coreferential with the subject, as the following sentences illustrate:[11]

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[8] Note that it is the form of the STEM rather than the root that triggers this rule. This rule occasionally results in cases where both s- and ƚ-series classifiers are found with a given theme. An example is *O-ka-S-s-xa*·* (∅: s'-Process. with stem *-xe·s'*) 'to pour P'; compare *ˀa-ka-w-si-xá·* (Perf) 'poured it' and *ˀa-g-ła-xé·s'* (Dur Impf) 'is pouring it' (where *g-* < *ka-*). See also Story 1966:5.2, 5.41, and 6.23.

[9] Cf. Story 1966:6.211.

[10] The cognate themes Eyak *O-S-də-la* and PA **O-S-də-na·ŋ* 'to drink' share the pecularity of being the only transitive themes containing the D-component.

[11] See also Story 1966:6.221.

(6a) Theme *O-S-ɬ-ˀad** (Motion) ‘S handles plural O’

(6b) *wu‘ʒ-ka‘-dé· has-ˀa-w-ƛi-ˀa‘d*

(RECIP-surface-ALL PL-3-PERF-ɬ+D+I-handle.plural)

‘they put them on one another (subject on object, e.g. each putting a blanket on another person)’

(6c) *wu‘ʒ-ka‘-dé· has-ˀa-w-ɬi-ˀa‘d*

(RECIP-surface-ALL PL-3-PERF-ɬ+I-handle.plural)

‘they put them on one another (object on object, e.g. putting one blanket on another)’

It should be noted in this connection that the reflexive object pronominal has the allomorph ∅ when its head is a relational noun, i.e. an inalienable noun referring to a body part of a living being, an analogously identifiable part of an object, or a location in relation to something. Moreover, if the relational noun is the object of the verb, it is obligatorily incorporated into the verb in this case.[12]

(7a) Theme *NO-x’ yé’#O-S-∅-ˀu‘* (Motion) ‘S puts, leaves O at NO’ (note that *-x’* alternates with -’ after a vowel)

(7b) *ˀax̣-ná-’ yé’#ˀa-‘-wa-ˀu‘*

(1SG-part.draped.over-LOC thus#3-PERF-0+I-put)

‘he/she put it (article of clothing) on me’

(7c) *∅-ná-’ yé’#ˀa-w-di-ˀu‘*

(REFL-part.draped.over-LOC thus#3-PERF-0+D+I-put) ‘he/she put it (article of clothing) on himself/herself’

(8a) Theme *O-S-∅-ˀus’** (na: gʷ-Process.) ‘S washes O’

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[12] Naish-Story call this phenomenon ‘middle use’ of the +D classifier, but some instances of what they call ‘middle use’ I would ascribe to lexical choice of classifier; see Story 1966:6.223.

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(8b) *du-ÿá ʔa-ʻ-wa-ʔú's'*

(3-face 3-PERF-Ø+I-wash)

'he/she washed his/her (own or another's) face';

but with incorporated object,

(8c) *ʔa-ÿa-ʻ-wa-ʔú's'*

(REFL-face-PERF-Ø+I-wash)

'he/she washed his/her (another's) face' vs.

(8d) *∅-ÿa-w-di-ʔú's'*

(REFL-face-PERF-Ø+D+I-wash)

'he/she washed his/her (own) face'[13]

The D-component also creates antipassives:[14]

(9a) Theme *O-ka-S-š-xid** (Ø: '-Process.) 'to write',

(9b) Antipassive *ka-S-š+D-xid** 'to write'.

The D-component also occurs in derivational strings denoting return to place of origin, when these are added to intransitive Motion themes: *qux̣#(+D)* (Ø) 'returning' and *ʔa-ÿa-u-(+D)* (Ø) 'turning back'.[15] With transitive themes, the former string lacks the D-component, and the latter string does not occur.

It also occurs in the following productive derivational strings:

Self-benefactive *ga-(+D)* (with Processive themes) 'doing for oneself'.[16]

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[13] Unless the form with reflexive object is lexicalized (as is the case in (2)), non-reflexive pronouns may optionally be used even where the reference is semantically reflexive.

[14] See also 5.1.6 and Story 1966:6.226.

[15] See Story 1966:6.223.

[16] See Story 1966:6.223.

Plural *(+D)(...-x')* (with Dimensional Stative themes), which denotes that the object is plural.[17]

Locomotive *(ka-)s+D-* (with Processive themes, forming Motion themes) 'moving by/while doing'.

Dissimulative *š-q'e-ł+D-* (with Processive themes) 'pretending to do'

It is also found in the non-productive strings *O-(+D)...(-x')* 'O has plural N', *O-S-(+D)...-(ÿ)áɢʷ*, which forms verbs of undoing and removing, and *ʔaš-ka-u-S-ł+D-...-a'* 'S plays at N/V-ing'; these are added to roots or stems.[18]

4.1.1.3. Order +1c: the series component

The series component may be thematic or introduced by a derivational string. A number of derivational strings contain a component labeled *s-*. This indicates the replacement of the original classifier by *s-* or *ł-*; note that this *s-* or *ł-* entirely supplants the original classifier inclusive of its D-component. The default choice is *s-*, which is replaced by the *ł-* where the stem contains an affricate-series obstruent in accordance with 4.1.1.(5). However, there are cases where *ł-* is chosen where we would expect *s-* by the above generalization; these may be treated as irregular and thus lexically specified.

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[17] The suffix *-x'* is not added in the Comparative forms of these derivatives; compare *O-∅-ÿat'* (ga-stat.) 'O is long', Plural *O-∅+D-ÿat'-x'*, but Comparative *MANNER#O-ka-ŭ-∅ÿat'** (na-stat.) 'O is (so) long', Plural *MANNER#O-ka-ŭ-∅+D-ÿat'**.See also Story 1966:6.222

[18] See Story 1966:4.322, 4.324.

The most common derivational string with *s-* is the causative string *S-s-*, which adds an agentive subject; this is discussed in 3.1.2.[19] Similar to the transitive causative is the Instrumental derivational string *PO-ǯ s-*, where an adjunct phrase of instrument is added.[20] There are also a few themes where the addition of an adjunct phrase of spatial relationship is likewise accompanied by the addition of *s-* to the theme; here the addition of *s-* similarly seems to imply an interaction or intimate contact between the object and the object of the adjunct PP in the performance of the action.

(10a) Theme *O-S-∅-qa•·* (∅: s'-Process.) 'S sews O',

(10b) *PO-d O-S-ɬ-qa•·* 'S sews O to PO'

This *s-* also serves as a classificatory string, denoting that the object is a something extended or complex (for a brief discussion of the classificatory system see 3.1.2). It is a component of the classificatory strings *ka-s-* (small round extended/complex object) and *ǯi-(ka-)s-* (flexible extended object).[21]

It is also a component of the following productive derivational strings:[22]

Exhaustive *ÿax̨#ÿa-s-* (∅) (with Motion, Eventive, and Processive themes), which indicates that all or much of the object is affected.

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[19] See also Story 1966:5.41.

[20] See further Story 1966:5.43(5).

[21] See further Story 1966:5.42.

[22] See also Story 1966:4.322, 4.323, 5.43(2,3), 5.52.

Errative *ÿa-s-...-x̣a‘* (∅) (with transitive themes of throwing or shooting) ‘missing’.

Together with the D-component, it occurs in the following:[23]

Locomotive *(ka-)s+D-* (with Processive themes, forming intransitive Motion themes) ‘moving by/while V-ing’; Causative *O-(ka-)s-*.

And it occurs in the following less productive strings: *O-s-...(-ÿ ~ -i‘)* ‘O has N’ and *O-s-...-(ÿ)áɢʷ* ‘O lacks N’ (both added to noun stems), *O-s-...-i‘* (added to verb roots) ‘O is liable (to cause one) to V’, and *O-ka-u-s-...-šán ~ -č’án* (added to roots or stems) ‘O is good for V-ing; O is good to V’.

In two derivational strings, the combination ł+D- replaces the classifier: Dissimulative *š-q’e-ł+D-* ‘pretending to do’ and *ʔaš-ka-u-S-ł+D-...-a‘* ‘S plays at N/V-ing’.[24]

The š-series component generally does not figure in the derivational strings discussed above, although occasionally *š-* does occur in a theme where it seems to have a causative function. The most prominent use of this series is affective: in perhaps half the cases of verbs with š-series classifiers, the verb has what could loosely be called a pejorative connotation.

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[23] See also Story 1966:5.43(4).

[24] Since not all instances of these strings are known, we cannot yet say for certain that only the ł-series occurs here, but the variation between *s-* and *ł-* series seen in the following theme and derivatives taken from Story 1966:5.2 is explained by this assumption: *O-S-∅-x̣a*·* (∅: ’-Process.) ‘S eats (general) O’, *O-S-s-x̣a*·* ‘S eats (extended) O’, *ÿax̣#O-ÿa-S-s-x̣a*·* ‘S eats all O’; but *š#q’e-ł+D-x̣a*·* ‘S pretends to eat’.

Most easily isolable are cases where the classifier of Stative verb themes is shifted to the š-series in inherently negative derivatives with pejorative connotation:

(11a) Theme *O-∅-k'é·* (ga: ÿ-Stat.) ‘O is good’,

(11b) Pejorative Negative *NEG O-š-k'é·* ‘O is bad’

(12a) Theme *ÿa‘#qu-S-s+D-gé·* (ga: ÿ-Stat.) ‘S is wise’,

(12b) Pejorative Negative *NEG ÿa‘#qu-š+D-gé·* (ga: ÿ-Stat.) ‘to be foolish’

(13a) Theme *MANNER O-∅-ti•‘* (na: ÿ-Stat.) ‘O is (thus)’;

(there is ordinarily no change of classifier series in the negative, but if the manner adjunct is ɢ*a‘#* ‘all right’ we find the following base pair:)

(13b) ɢ*á‘#O-∅-ti•‘* ’to be all right, acceptable’,

(13c) Pejorative Negative *NEG* ɢ*a‘#O-š-ti•‘* ‘to be (morally) unacceptable’

Where semantically appropriate we find cases where both the base with the original classifier and the base with the š-series classifier can occur; compare

(14a) *ÿa-k'é·* (CL-be.good)‘it is good’

(14b) *ƛé·ł ˀu-š-k'é* (not IRR-CL-be.good) ‘it is bad’

(14c) *ˀa-ÿis ÿa-k'é·* (it-for CL-be.good) ‘it is good, suitable for it’

(14d) *ƛé·ł ˀá-ÿis ˀu-∅-k'é* (not it-for IRR-CL-be.good) ‘it is not good, suitable for it’.

These cases point up clearly that pejorativity, not just negativity, is involved in the use of the š-series classifier.

Some cases have also been found where an š-series classifier may be substituted for the original classifier to impart a pejorative connotation where negation is not involved. Such cases are rare and hard to elicit, and it is not certain how productive the process presently is. Compare, for example,

(15a) Theme *S-∅-ta•‘* (na: Event., with Pos. Impf.), (15b) Imperative *na-∅-tá* (MOD-CL-sing.sleep) 'sleep!',

(15c) Pejorative Imperative *na-š-tá* (MOD-CL-sing.sleep) 'sleep, darn you! (said e.g. to a fussing baby)'.

The form with š-series classifier imply that the subject is acting deplorably, being a nuisance, etc. In other cases the use of the classifier is lexically fixed; a pejorative connotation is discernable but the š-series classifier is not distinguishable as an addition to an underlying theme.

We should also note that a unique contraction of classifier and stem occurs with this series. With the theme *S-š+D-xix** (Motion) 'S runs', we find the contraction *ǯ-x* > *ǯ-*.

(16a) Perfective *wu-ǯi-xi'x* (PERF-CL-run) 'he/she ran (off)'

(16b) Negative Perfective *ƛé·ł wuši'x* < */wu-š-xi'x/* (PERF-CL-run) 'he/she didn't run (off)'

4.1.2. Order +2: subject pronominals

The subject pronominals indicate the agent of an intransitive or transitive verb. The prefix *du-*, however, also occurs as a formal element in *du*-objective verb themes (see 3.1). The subject prefixes are listed here for reference:[25]

1. sing. (1SG) *x̣a-*

1. plur. (1PL) *tu·-*

2. sing. (2SG) *i·-* ~ *∅*

2. plur. (2PL) *ÿi-*

3. (3) *∅-*

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[25] See also Story 1966:6.32.

Indefinite human (INDEF) *du-(+D)*

The allomorphy with the 2SG prefix is described in (17):

(17) The 2SG prefix has the allomorph zero in the Imperative with a classifier lacking the D-component.

Compare, for example,

(18a) Theme *S-∅-qux̣** (Motion) 'S goes in one boat', with aspectual derivational string *ÿan#* (∅)

(18b) *ÿan#qúx̣* 'go ashore (by boat)!',

but with aspectual derivational string *qux̣#(+D)* (∅)

(18c) *qux̣#ˀidaqúx̣* 'go back (by boat)!'

We should also note that transitive verbs with indefinite human prefix frequently translate as passives in English.

(19a) Theme *O-S-ł-yex̣** (∅: ·-Process.) 'S makes O'

(19b) *šdí·n-dáx̣ wuduƛiyéx̣* (steel-ABL INDEF.made.3) 'it is/was made of steel'

(19c) *šdí·n-dáx̣ dułyé·x̣* (steel-ABL INDEF.makes.3) 'it is (customarily) made of steel'

4.1.3. Order +3: distributive prefix

Order +3 consists of an allomorph of a single morpheme *daɢa-*. This prefix is in semi-free variation with the more common allomorph *dax̣-* of order +7b. Together, these constitute what Naish-Story have termed the DISTRIBUTIVE PREFIX.[26]

The distributive prefix specifies that the referent of the absolutive argument (object of transitive or objective verb, or subject of intransitive verb) is composed of multiple members or parts viewed as existing or acting individually or separately.

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[26] See further Story 1966:6.33.

This referent must be inanimate. The semantics of the distributive prefix will further be discussed in 4.1.7, where *daɢa-* ~ *dax̣-* will be contrasted with the other number prefix *has-*. Here we will focus rather on the distribution of the allomorphs.

The order +7b prefix allomorph appears to be in the process of supplanting the order +3 prefix allomorph. The present distribution can be seen as the result of the interaction of two principles:

(20) The order +3 prefix allomorph is generally preferred with Affirmative Stative Imperfectives, and the order +7 allomorph is generally preferred elsewhere.

(21) The less morphologically complex the prefix string, the more likely it is that the order +3 allomorph will be used; and the more complex the prefix string, the more likely it is that the order +7b allomorph will be used. In particular, the first and second person subject pronominals do not appear to occur at all with the order +3 allomorph.

Before Affirmative Stative Imperfectives with no prefixes other than the classifier *ÿa-*, the order +3 allomorph is almost exclusively preferred, at least by older, more conservative speakers.[27] Elsewhere with Affirmative Stative Imperfectives, the order +3 allomorph is preferred, but either allomorph is possible.[28] (22a) Theme *O-ø-k'e·* (ga: ÿ-Stat.) 'O is good'

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[27] Habitually, however, *dax̣-* is found even with conservative speakers.

[28] In Affirmative Stative Imperfectives with no prefix but a classifier other than *ÿa-*, *daɢa-* is contracted to *dax̣-*, which is phonetically indistinguishable from *dax̣#*.

(22b) *ÿa-ké·* (CL-be.good) ‘it is good’

(22c) *daɢa‘k’é· /daɢa-ÿa-k’é·/* ‘they (things) are good’

(23a) Theme *O-∅-da*·* (Motion, with Extension Imperf.) ‘O flows’, with aspectual derivational string -- (na) ‘moving’

(23b) *na‘da‘ /na-ÿa-da‘/* (MOD-CL-flow) ‘it (river) flows’

(23c) *nadaɢa‘da‘ /na-daɢa-ÿa-da‘/* or *dax̧-na‘da‘* ‘they (rivers) flow’

(24a) Theme *qu-S-s+D-ti*‘* (ɢa: ÿ-Stat.) ‘S exists’

(24b) *quʒiti‘ /qu-ʒi-ti‘/* (AREAL-CL-be) ‘it exists’

(24c) *qudax̧ʒiti‘ /qu-daɢa-ʒi-ti‘/* or *dax̧-quʒiti‘* ‘they (things) exist’

Elsewhere, the order +3 allomorph is less widely attested. It occurs only with third person or indefinite human subject, especially in Perfectives and Active Imperfectives with no more than a single order +5 prefix.[29] In Interior Tlingit, moreover, in most instances from transcribed texts where the order +3 allomorph has been found with Active Imperfectives, the order +7b allomorph occurs as well. For Coastal Tlingit speakers, such reduplication is ungrammatical; only one instance of *dax̧-* may occur in the verb complex.

(25a) Theme *PO-x’ yé’#O-S-∅-ˀu*‘* (na: Event.) ‘S puts O at PO’

(25b) *ˀáx’ yé’#wduwaˀu‘ /ÿu-du-ÿa-ˀu‘/* (PERF-INDEF-CL-put) ‘it was put there’ (lit. ‘one put it there’)

(25c) *ˀáx’ yé’#dax̧-wuduwaˀu‘* or *ˀáx’ yé’#wdax̧duwaˀu‘ /ÿu-daɢa-du-ÿa-ˀu‘/* ‘they were put there’ (lit. ‘one put them there’)

(26a) Theme *O-S-∅-ʒu*‘* (0: Event., d-Iter.) ‘S hits O with missile’, with incorporated object *NO šá* ‘O’s head’

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[29] See Story 1966:129-131 for further discussion and exemplification.

(26b) *ˀa-ša-ʒe‘d* (3-head-hit.with.missile) ‘he is hitting it/them on the head (by throwing at them)’

(26c) Coastal Tlingit *dax̣-ˀašaʒe‘d* or *ˀašada*ɢ*aʒe‘d*, Interior Tlingit *dax̣-ˀaša(da*ɢ*a)ʒe‘d* ‘he is hitting them on the head (by throwing at them)’

Historically, then, it would seem that the order +3 allomorph is the more original. Before CV- classifiers other than *ÿa-*, *da*ɢ*a-* regularly contracts to *dax̣-*. This contracted variant must have moved leftward and taken its place next to the order +7b pluralizer *has-*, with which it fits semantically. For further discussion, see 4.1.7.

4.1.4. Order +4: schetic prefixes

Order +4 consists of three suborders, or more precisely, a set of prefixes with five suborders. The system can be represented as follows:[30]

+4a. modal prefixes:

ÿu-

ɢ*a-*

+4b. aspect prefixes:

Ø-

na-

ɢ*a-*

+4c. u-prefixes:

modal/thematic/derivational *u-*

modal/thematic/derivational *u-*

thematic/derivational *u·-*

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[30] See further Story 1966:6.34-37.

+4d. aspect prefix:

ga-

+4e. derivational prefix:

ga-

The perfective prefix *ÿu-* is set apart by the fact that it cannot cooccur with any of the other prefixes of suborders +4a-d and thus is not ordered with respect to them. Like Naish-Story, I will on rather tenuous grounds group this perfective prefix with the order +4a prefix *ɢa-*, which Naish-Story call the ‘imperfective prefix’. However, I cannot agree with their application of the term ‘imperfective’ to the latter prefix, which occurs in the Future, Potential, Hortative, and Contingent modes. I see no obvious set of schetic features shared by these modes and excludable for the other modes, so I will simply call *ɢa-* a modal prefix. Note also that Naish-Story use the term ‘imperfective’ for modes characterized by this prefix, whereas here the term Imperfective is used for the unmarked mode (which has many subtypes, most of which belong to what Naish-Story refer to as the ‘non-perfective’ category, i.e. forms that contain neither of the +4a prefixes). The perfective prefix *ÿu-*, in contrast with *ɢa-*, has a clearly definable function: it is uniquely the mark of the Perfective mode.

The four aspect prefixes of +4b and +4d (*∅-*, *na-*, *ɢa-*, *ga-*) belong together functionally, but positionally the +4b prefixes occur to the right of the +4c prefixes, and the +4d prefix to their left. The aspect prefixes are in complementary distribution. One of these aspect prefixes is specified for all themes other than

Motion, Extension, or Position themes; this is called THEMATIC ASPECT PREFIX. If a derivational string marked for aspect is added to a verb theme, its aspect prefix supplants the thematic aspect prefix in the resultant verb base; and similarly, if a subaspect is added to a verb base, its aspect prefix supplants that of the verb base. The aspect prefix specified by the theme, derivational string, or subaspect is required in the following modes: the Extension Imperfective, the Distributive-Positional Imperfective, the Realizational, the Potential, and the Habitual modes; and all the Desiderative and Conjunctive modes.

The aspectual categories represented by these aspect prefixes may formally and semantically be divided into two sets: the Telic aspect, represented by the *Ø*-aspect prefix; and the Atelic aspects, represented by the *na*-, ɢ*a*-, and *ga*- aspect prefixes. (Another way of stating this generalization would be to say that the Telic aspect is characterized by absence of a prefixal aspect marker, and that any aspect with an overt prefixal marker is Atelic.) This division is formally realized in the stem variation. In the Perfective, Potential, Habitual, Imperative, and Hortative modes, the stem variant required by the Telic aspect is distinct from that required by the Atelic aspects. Semantically, too, the Telic aspect has a relatively well-defined focus. It is used with themes referring to actions and events with a definite end product or resultant state, as well as with derivational strings that generally express motion leading to a definite goal or to a confined location.[31]

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[31] However, the semantic correlation of this aspect category with the abstract notion of telicity is less than perfect. One Telic derivational string, for example, refers to inception of motion; and certain of the Atelic derivational strings might

The prefixes of order +4c are all characterized by the vowel *u*, and they are mutually exclusive. There are moreover cooccurrence restrictions between these prefixes and other prefixes. These cooccurrence restrictions may be stated as follows:

(27) If any prefix of order +4 cooccurs with perfective prefix *ÿu-* or the subject pronominals 1PL *tu·-*, 2SG *i·-*, 2PL *ÿi-*, or INDEF *du-*, the former is deleted. For conservative speakers, however, this deletion may optionally not apply with INDEF *du-* in forms where there is no modal prefix (*ÿu-*, *ɢa-*, *na-*, *ga-*).

(28) If *u·-* or *ŭ-* cooccurs with *u-*, the former is deleted, except in the Future. In the Future, *u-* and *u·-* are deleted in the presence of the *ŭ-* that is characteristic of this mode.

(29) If *u·-* cooccurs with *ga-*, the former is deleted.

The prefix *u-* is the characteristic marker of the Irrealis submode and occurs in the Potential mode, in the Occasion mode with Telic aspect, and as a thematic element in the theme *NEG O-ga-u-ha·* 'O is plainly visible'. The prefix *u·-* occurs exclusively in conjunction with the prefixes *ka-* and *ÿa-* in aspectual derivational strings and in a few themes. The prefix *ŭ-* occurs only in the Future mode (where it is preceded by *ga-*) and as a component of the Comparative derivational string *MANNER ka-/ga-ŭ-* (n) (added to Stative themes) 'to V to such an extent'. Thus *ŭ-* and *u·-* occur only in conjunction with preceding *ga-*, *ka-*, or *ÿa-*. The difference

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equally well be characterized as expression motion leading to a confined location.

between the three order +4 prefixes is in fact manifested in the way they contract with preceding *ga-*, *ka-*, or *ÿa-* (here abbreviated *Ca-*): *Ca- + u- > Cuʻ-*; *Ca- + u·- > Cu·-*; *Ca- + ŭ- > Cu-*; and furthermore *Ca- + ŭ- + ÿa- > Cuʻ-*.

The order +4e prefix *ga-* occurs only in the Comparative derivational string (see preceding paragraph), and in the Self-benefactive derivational string *ga-(+D)* 'to V for oneself'. This prefix might have been placed with the order +5 prefixes, but is included here for two reasons. First, there is no way to test the relative ordering of this prefix and the aspect prefix *ga-*. The ordering adopted here is thus to some extent arbitrary, but putting these two prefixes in different orders would imply that it is not arbitrary. Second, if this prefix is not included in order +5, we are permitted the generalization that all prefixes of order +5 are (or formerly were) formally identical with incorporated noun stems.

Order +4 offers three instances of the principle of templatic attraction stated in 4.(1). The prefixes of order +4c occur in the same position in the template and are subject to a set of cooccurrence restrictions that have the effect of ensuring that if two of them occur in a given verb form, only one will surface. The two *ga-* prefixes and the two *ɢa-* prefixes are not telescoped in this way, but if both of the two homophonous prefixes occur, they are always contiguous, and in fact it is not possible to determine their relative ordering. In the case of the two *ɢa-* prefixes, the ordering given here is more elegant; the converse ordering would needlessly require one more suborder and further break up the set of aspect prefixes. The ordering given here for the two *ga-* prefixes also seems more elegant, since this places order

+4e *ga-* next to order +5a *ka-*, with which it alternates in the Comparative string.[32]

4.1.5. Order +5: incorporated inalienable nouns

Although many prefixes of order +5 are components of themes and derivational strings, each of these thematic/derivational prefixes is (or formerly was) formally identical, that is to say homophonous, with the incorporated form of an inalienable noun.[33] For example, the prefix *ka-*, one of the most common thematic/derivational prefixes, is formally identical with the incorporated form of the noun *ká* ‘surface’. This fact does not necessarily imply that the thematic/derivational prefix is synchronically or even diachronically identifiable with the homophonous incorporated noun; in many cases such an inference would undoubtedly be incorrect. We would rather expect that prefixes that were not by origin nominal stems would historically have been assimilated to and/or identified with incorporated noun stems, in accordance with the principle of templatic attraction stated in 4.(1). The converse is probably also true; see 4.1.8 for discussion of thematic *ÿa‘#*, an order +8 clitic that may have originated as an incorporated noun stem, but fell together with the aspect clitic *ÿa'#*.

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[32] Note, however, that the *g* of the +4d prefix *ga-* alternates with *k* in the Future prefix string. The change of *g* to *k* is in this case treated as an assimilation; see 5.2.1.4, rule 7.

[33] In some cases the incorporated noun stem is obsolete as a non-incorporated noun; examples are *s’a‘n-* ‘limb’ and *tux’-* ‘knee’. The prefix *sa-* was probably also nominal in origin, but its original meaning is difficult to ascertain. Furthermore, one prefix *q’e-* is an affective variant of *X’e-*, the incorporated form of *X’é* ‘mouth’; there is no non-incorporated **q’é*.

Order +5 contains a number of suborders, but it is not always clear just how to classify them. Due to the fact that many potential sequences of prefixes are not attested or simply do not occur, the relative ordering of these prefixes cannot be determined. We will therefore adopt the following system of suborders, based in part on the Naish-Story system:[34]

+5a.

ka- (them./deriv., classif.; incorp. *ká* 'surface')

+5b.

ÿa- (them./deriv., classif.; incorp. *ÿá* 'face')

+5c.

ǯi- (them., classif.; incorp. *ǯín* 'hand')

x̣'e- and *q'e-* (them./deriv.; incorp. *x̣'é* 'mouth')

tu- (them.; incorp. *tú* 'inside; inner being, mind')

ša- (them., classif.; incorp. *šá* 'head')

łu- (them.; incorp. *łé* 'nose')

se- (them.; incorp. *sé* 'neck; voice')

sa- (them.; (obsolete stem?))

x̣a- (incorp. *x̣a'w* 'fur')

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[34] See further Story 1966:5.5; note that Naish-Story make no distinction the incorporates of orders +5 and +6, so both are discussed in Story 1966:5.5.

šu- (them.; incorp. *šú* ‘end’)

gu- (incorp. *gú* ‘base, butt’)

ta- (them.; incorp. *tá* ‘bottom’)

da‘- (them.; incorp. *da‘* ‘periphery’)

x̣u‘- (them./deriv.; incorp. *x̣u‘* ‘midst’)

t’a‘- (them.; incorp. *t’á·(-g)* ‘landward side’)

gin- (incorp. *gi‘n* ‘tail flipper’)

s’a‘n- ((obsolete stem) ‘limb’)

łidíx̣’- (incorp. *łidíx̣’* ‘neck’)

waɢ- (only with *ka-*: classif.; incorp. *wa‘ɢ* ‘eye’)

s’aɢ- (only with *ka-*: classif.; incorp. *s’a‘ɢ* ’bone’)

s’uɢ- (only with *ka-*: incorp. *s’ú·ɢ* ‘rib’)

x̣’us- (only with *ka-*: incorp. *x̣’u‘s* ‘foot, leg’)

s’i‘- (only with *ka-*: incorp. *s’i‘* ‘eyebrow’)

dug- (only with *ka-*: incorp. *du‘g* ‘skin’)

łaka- (incorp. *łaká* ‘inside of mouth’)

ƛ’iɢ- (only with *ša-*: incorp. *ƛ’i‘ɢ* ‘finger’)

kiÿ- (only with *ša-*: incorp. *kiÿ* ‘knee’)

x̣’a-tu- (incorp. *x̣’é* ‘mouth’ plus *tú* ‘inside’)

tuɢ-x̣’e-/tuq’e- (incorp. *tú·ɢ* ‘anus’ plus *x̣’é* ‘mouth’)

da‘-ˀid- (incorp. *da‘-ˀíd* ‘joint’)

These prefixes and prefix combinations may belong to one or more of the following functional types: INCORPORATED NOMINAL, CLASSIFICATORY PREFIX, DERIVATIONAL PREFIX, or THEMATIC PREFIX. As pointed out in section 3.2, the inalienable incorporate of order +5 is syntactically the object of the verb, and the object pronominal of order +6 is syntactically the object of the inalienable incorporate. According to the incorporate-before-thematic principle (see 4.(2)), the incorporate must occur to the left of all thematic/derivational prefixes. This principle has a natural explanation: it ensures that the incorporate will occur immediately to the right of its object (i.e. the order +6 object pronominal). We may illustrate this principle with a few examples.

(30a) *O-ka-∅-ǯa*G^{w}*-g* (ga: root-Stat.) 'O is steady, sure, skilled'

(30b) *O-ǯi-ka-∅-ǯa*G^{w}*-g* 'O is sure-handed, skilled at working'

(30c) *O-x̣'e-ka-∅-ǯa*G^{w}*-g* 'O is sure-mouthed, eloquent'

(30d) *O-tu-ka-∅-ǯa*G^{w}*-g* 'O is sure-minded, perspicacious'

(31a) Theme *O-šu-u-S-∅-ne*'* (na: '-Process.) 'S guides, leads, prompts O'

(31b) *O-tu-šu-u-S-∅-ne*'* 'S prompts O's mind; S is the reason O goes somewhere or does something'

(31c) *O-x̣'e-šu-u-S-∅-ne*'* 'S prompts O's mouth; S is the reason O says something'

(32a) Theme *O-ka-ł-*Gí·/Gé· (ga: ÿ-Stat.) 'O is flashy, fancy, good-looking'

(32b) *O-ša-ka-ł-*Gí·/Gé· 'O is cute, beautiful'

(32c) *O-x̣'e-ša-ka-ł-*Gí·/Gé· 'O is funny, witty'

As illustrated in (30-31), the incorporates *ǯi-* 'hand, activity', *x̣'e-* 'mouth, speech', and *tu-* 'inner being, mind' are frequently added to objective and transitive verbs to denote physical, verbal, and psychological/mental characteristics and activities. These incorporates always precede the thematic prefixes of order +5. Example (32) illustrates how incorporates may diachronically become thematic prefixes. In (32b), *ša-* 'head/hair' was undoubtedly originally an incorporate: 'O's head/hair is good-looking'; but the idiom became lexicalized, so that *ša-* was reinterpreted as a thematic prefix and its semantic contribution to the new theme was obscured. In (32c), this new theme is further enlarged by the incorporation of *x̣'e-* 'mouth': 'O's mouth/speech is cute'. This also appears to be a lexicalized idiom.

An important bit of evidence that these nouns are syntactically incorporated is provided by the fact that incorporated inalienable nouns may be diminuitivized with the suffix *-k'(*^{w}*)*. Since there are no other instances where prefixes are allowed to occur in the verb prefix string, the obvious analysis is that the diminuitivized inalienable noun is incorporated as a whole into the verb. It may be ambiguous whether the diminuitive refers to the part (the inalienable noun) or to the whole (its possessor).

(33a) *O-x̣'e-ša-ka-ł-*Gí·/Gé· 'O is funny, witty'

(33b) *x̣'ašagłi*Gí· /*x̣'e-ša-ka-łi-*Gí·/ 'his/her speech is cute, funny'

(33c) *x̣'a-ša-k*^{w}*-ka-łi-*Gí· 'his/her (babyish) speech is cute, funny'

(34a) Theme *O-s+D-x̣á·w* (ga: root-Stat.) 'O is hairy'

(34b) *du-ÿá w-ʒi-x̣á·w* (3NEU-face PERF-CL-STEM) 'his/her face is hairy'

(34c) *ÿa-w-ʒi-x̣á·w* 'id.'

(34d) *du-ÿá·-k*^{w} *wu-ʒi-x̣á·w* 'his/her little face is hairy; his/her (a baby's) face is hairy'

(34e) *ÿa-k*^{w}*-wu-ʒi-x̣á·w* 'id.'

Note, however, that where the form with inalienable noun becomes a lexicalized idiom, its diminuitivized counterpart follows suit. The diminuitive in this case appears to associate semantically with the object of the verb, as seen in (33e).

Certain order +5 prefixes also function as classificatory prefixes; these have the effect of imposing selectional restrictions on an inanimate object with regard to its physical characteristics. It is a rather interesting fact that incorporated inalienable nominals and classificatory prefixes are in complementary distribution; they never cooccur within a verb. The reason for this is fairly straightforward: classificatory prefixes refer to physical characteristics of inanimate objects, whereas incorporated inalienable nominals are usually possessed by animate referents, and if possessed by inanimate referents, are often difficult to distinguish from classificatory prefixes. Consider the following examples.[35]

(35a) Theme *O-∅-ÿat'** (na: Stat.) 'general O is long, tall', with classificatory *ł-* *O-ł-ÿat'** 'complex O is long, tall'; Comparatives *MANNER O-ka-ĭʉ-∅-ÿat'** 'general O is (so) long, tall' and *MANNER O-ka-ĭʉ-ł-ÿat'** 'complex O is (so) long, tall':

(35b) *yé'#g^w łiÿá·t'* 'it (complex object) is long, tall'

(35c) *yé'#kag^w łiÿá·t'* 'it (flexible object) is long' (*ka-* class.)

(35d) *yé'#ʒi(ka)g^w łiÿá·t'* 'it (slender flexible object) is long' (*ʒi-* class.)

(35e) *yé'#ʒig^w łiÿá·t'* 'he has long hands/arms' (*ʒi-* incorp.)

(35f) *yé'#ƛ'iɢkułiÿá·t'* 'he has long fingers' (*ƛ'iɢ-ka-* incorp.)

(35g) *yé'#šag^w łiÿá·t'* 'he has long hair' (*ša-* incorp.)

(35h) *yé'#šaku'wá·t'* 'it (mountain, building) is tall' (*ša-* class.)

(35i) *yé'#s'aɢkułiÿá·t'* 'he has long bones'

(35j) *yé'#s'aɢku'wá·t'* 'it (standing vessel) is tall' (*s'aɢ-ka-* class.)

(36a) Theme *O-∅-wux̣'** (na: Stat.) 'O is wide', Comparative *MANNER ka-ĭʉ-∅-wux̣'** 'O is (so) wide'

(36b) *yé'#ku'wu·x̣'* 'it is wide'

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[35] See further Story 1966:5.6.

(36c) *yé'#x̣'akuʽwu·x̣'* 'he has a wide mouth; it has a wide opening' (*x̣'e-* incorp.)

(37a) Theme *O-∅-t'i·x'* (ga: root-Stat.) 'O is hard'

(37b) *ÿat'i·x'* 'it is hard'

(37c) *x̣'aÿat'i·x'* 'it (viscous liquid) is slow-running, congealed' (*x̣'e-* class.)

As seen in (35c-d), *yé'#ǯigʷłïÿá·t'* can mean either 'it (pole, sapling, rope, wave) is long' or 'he has long arms'. In this case there is undoubtedly an etymological connection between incorporated *ǯi-* and classificatory *ǯi-*. Sometimes even synchronically it is difficult to tell whether a given instance of a prefix is to be regarded as an incorporate or a classificatory prefix. For example as seen in (36b), *x̣'aÿawúx̣'* (or *yé'#x̣'akuʽwú·x̣'*) when referring to a person means 'he has a wide mouth'; and when referring to a jar, 'it has a wide opening'. But one might ask whether it might not rather mean 'it (object with an opening) is wide'. The former is apparently the case, but by considering such examples one can readily see how the classificatory prefixes diachronically stem from incorporated nouns by metaphoric extension and subsequent 'bleaching away' of their semantic content.

An even more complex problem is posed by certain uses of the prefix *ša-*. Comparing (35f) above with (38) and (39) below, we see that *ša-* (originally 'head') refers to the top of an erect elongated object.[36]

(38a) Theme *O-S-∅-tan** (Motion) 'S handles wooden O', with derivational string *PO-d* (∅) 'moving to rest at PO':

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[36] See further Story 1966:5.511(3).

(38b) *ʔá-d ʔa-ʻ-wa-tán*

(it-PUNCT 3-PERF-CL-handle.wooden)

‘she put it (wooden object) there’

(38c) *ʔá-d ʔa-ša-ʻ-wa-tán*

‘she propped it (long wooden object) there’

(39a) Theme *O-š+D-x̣in** (Motion) ‘O (wooden object or container) moves in an uncontrolled manner’, with derivational string *daʻg#* (∅) ‘falling down’:

(39b) *daʻg#wu-ǯi-x̣ín*

(down#PERF-CL-wooden/container.move.uncontrolled)

‘it (wooden object or container) fell down’

(39c) *daʻg#ša-w-ǯi-x̣ín*

‘it (erect long wooden object) fell over’

In (38) and (39), it is not altogether clear how to classify *ša-*: is it functioning as an incorporate, a classificatory prefix, or a derivational prefix? Semantically, it appears simultaneously to impose an additional selectional restriction on the object--the object must be elongated and erect--and to modify the meaning of the verb. That is, it appears to have both classificatory and derivational functions. But again, one could plausibly argue that the prefix is simply an incorporated noun: the verb refers to the motion of part of an object, namely its ‘head’ or top. But it is implicit in the meaning of *ša-* as applied to objects that the object must be elongated and erect; otherwise it will not be perceived as having a ‘head’. Therefore, one would conclude, the selectional restriction on the object follows by conventional implicature from the meaning of the incorporated noun.

There is more to the matter than this, however. In examples (38) and (39), the aspectual derivational string denoting the direction of motion can occur with or without the prefix *ša-*. In example (40), however, the aspectual derivational string, essentially *ká-x̣* (ɢa), can occur only with *ša-*.

(40a) Theme *O-S-s-*ɢ*ɨx̣*’* (Motion) ‘S moves extended O in an uncontrolled manner’, with derivational string *ká-x̣* (ɢa) plus *ša-* ‘toppling’:

(40b) *ká-x̣ ʔa-ša-w-si-*ɢ*ɨx̣*’

(surface-PE 3-head-PERF-CL-move.extended.uncontrolled)

‘she knocked it (long wooden object) over’

Similarly, in (41), we see that the aspectual derivational string *PO-x̣ ÿa-u·-* (∅) ‘moving obliquely, circuitously along PO’ acquires quite a different meaning with the addition of *ša-*, namely ‘hanging on/over PO’. Here it would not appear that the selectional restriction on the object is altered; that is, the function of *ša-* does not appear to be classificatory.

(41a) Theme *O-S-∅-ti*•‘ (Motion) ‘S handles unclassified O’, with derivational string *PO-x̣ ÿa-u·-* (∅) ‘moving obliquely, circuitously along PO’:

(41b) *ʔá-x̣ ʔa-ÿa-‘-wa-ti·*

(it-PERT 3-face-PERF-CL-handle.unclassified) ‘he carried it along there (not in a direct path to his ultimate destination)’

(41c) *ʔá-x̣ ʔa-ša-ÿa-‘-wa-ti·* ‘he hung it on/over it (e.g. hanging fish on a pole to dry)’

Given this data, then, one would probably be forced to conclude that *ša-* is in some cases an incorporated noun, in some cases a classificatory prefix, and in other cases a derivational prefix that forms part of an aspectual derivational string; it may sometimes be difficult to distinguish between these functional categories. And in general, the distinction between incorporates on the one hand and derivational prefixes on the other may in some cases be unclear. From such cases we may gain insight into the diachronic processes that transform incorporated nouns into prefixes.

4.1.6. Order +6: Incorporated object pronominals and alienable nouns

It is not necessary to distinguish positional suborders in Order +6; all members of this order appear to be mutually exclusive. Nevertheless, two distinct types of incorporated object nominals occur in this order: pronominals and alienable nouns.

One important difference in their distribution must be noted: an incorporated alienable noun of Order +6 is NEVER the object of an incorporated inalienable noun of Order +5; whereas if there is an incorporated noun of Order +5, an Order +6 pronominal ALWAYS occurs as its object. Being transitive, the incorporated inalienable noun requires an object, and since the object is also incorporated into the verb complex, it can only be a pronominal. Now since incorporated alienable nouns do not occur with incorporated inalienable nouns, there is, strictly speaking, no way to establish the ordering of one group with respect to the other. I have here chosen to group the incorporated alienable nouns with the incorporated pronominals precisely because they are both sets of INTRANSITIVE NOMINALS; hence, Order +6 contains only intransitive nominals, and Order +5 contains only transitive nominals and prefixes homophonous with them.

4.1.6.1. Incorporated object pronominals

The object pronominals of Order +6 have already been summarized in section 3.1.3, but will be repeated for reference here.[37]

For the function of the third person recessive, neutral, and salient pronouns, see Leer 1990b. The reciprocal object pronominal is included here because it functions as part of the object pronominal system. Unlike the other object pronominals, however, it occurs to the left of the plural prefix *has-*. In terms of the verb template, then, it belongs with the distributive prefix *dax̣-*; together, these constitute order +7b.[38]

The partitive prefix *ʔa‘-* functions both as object and subject pronominal. In its latter function, it may cooccur with an object pronominal, in which case the partitive prefix occurs to the left of the object pronominal, as seen in (1).[39]

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[37] See also Naish 1966:6.41, 7.321. Note that Naish-Story treat the *has-* as an object pronominal, and that they treat the object pronominals as separate words (i.e. proclitics). The reason why I treat them as prefixes is that those which end with a short vowel (*ʔi-*, *ʔa-*, and *qu-*) undergo the same morphophonemic processes as +5 prefixes of the same shape. I propose the following diagnostics for distinguishing proclitics from prefixes: (a) only prefixes may undergo shape-changing morphophonemic processes; (b) only proclitics may be high-toned in Northern Tlingit; and (c) only proclitics may be separated from the rest of the verb complex by a focus clitic. The +6 number markers must therefore also be treated as prefixes, since the object pronominal *wu‘š-* may precede the number marker *has-*.

[38] See 4.1.7 and Naish 1966, p. 130.

[39] I could not verify this construction with EN; such collocations are rare and perhaps not allowed in some dialects.

	VO	**Incorporated NO**
1. sing.	*x̣ad-*	*x̣ad-/ˀax̣-*[40]
1. plur.	*ha·-*	*ha·-*
2. sing.	*ˀi-*	*ˀi-*
2. plur.	*ÿi·-*	*ÿi·-*
3. recessive	*ˀa-* ~ Ø	*ˀa-* ~ Ø
3. neutral	*ˀa-* ~ Ø	*ˀa-* ~ Ø
3. salient	*ˀaš-**	*ˀaš-**
reflexive	*š-*	Ø
reciprocal	*wuʿš-**[41]	*wuʿš-**
indef. human	*qu-*	*qa·-*
indef. non-human	*ˀad-*	*ˀad-*
partitive	*ˀaʿ-*	--

Figure 20. Incorporated object pronominals

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[40] For most speakers, *Xad-* is preferred; some do not use *ˀaX-*, and for some *Xad-* and *ˀaX-* are in free variation.

[41] There is variation between final *š* and final *ǯ* in the starred forms. ***wuʿǯ-*** appears to be in free variation with *wuʿš-*, the former apparently being preferred by some speakers before ***has-***. *ˀaǯ-*, on the other hand, is only attested in Interior Tlingit, and there only in the derivational string *ˀaš/ˀaǯ-ka-u-D+ł-...(-aʿ)* 'playing...', and in one example with preceding ***has-***:
(a) EN D1260: ***ƛéł has-ˀaǯ-wu·nGa·ǯi·yi qá· qu·sťí.*** (not PL-3SAL-3.might. discipline.POT.ATTRIB man 3.exists.IRR) 'there is noone to discipline him/her'; compare
(b) EN D730: ***ƛéł ˀaš-wu·nGa·ǯi·yi qá· qu·sťí.*** 'id.'

(42) *ʔa‘-ʔad-ʔi‘n-i·n*

(PART-thing-kill.plural-DEC)

‘some (*ʔa‘-*) used to kill animals (*ʔad-*)’

Note also that the partitive pronominal can, like the third person pronominal, be coreferential with an overt NP, as seen in (43). With the partitive pronominal, however, this overt NP may be a 1PL or 2PL independent pronoun, as seen in (44) and (45).

(43a) *wé k’únc’#áwé ∅-x̣ʷa‘x̣á·*

(that potatoes#FC 3-1SG.ate)

‘I ate the potatoes’

(43b) *wé k’únc’#áwé ʔa‘-x̣ʷa‘x̣á·*

(that potatoes#FC PART-1SG.ate) ‘I ate some potatoes’

(44) (J. C. Jackson: D-D2 D47-8) *qʷá·ɢd#cé ʔa·-né·#xʷán yi·hʷá·n*

(amiss#ADMON.CLITIC PART-3.befall.ADMON#IMPER.CLITIC 2PL)

‘Please don’t let something happen to any of you’

(45) (E. Marks: D-D2 K41) *ƛéł ʔa·dé· ɢuné·#ʔa·-ʔux̣ʒixi·x-i yé ʔuhá·n*

(not in.that.way starting#part-3.might.run-ATTR place 1PL)

‘none of us could get up and run’

Antipassives of transitive themes are formed in two ways. The first is to replace the object slot of the theme (*O-*) with an indefinite non-human object. This is usually *ʔad-* ‘something’, as in (46); but in a few lexicalized cases *ʔa-* occurs instead, as in (47). The second way to form Antipassives is by adding the D-component to the thematic classifier, as in (48).

(46a) _O-S-x̧a*·_ (∅: '-Process.) 'S eats O'

(46b) _ʔad-S-∅-x̧a*·_ 'S eats'

(47a) _O-S-∅-ł'ún*'_ (na: ·-Process. with stem _-ł'un*_) 'S hunts O'

(47b) _ʔa-S-∅-ł'ún*'_ 'S hunts'

(48a) _O-ka-S-š-xid*_ (∅: '-Process.) 'S writes O'

(48b) _ka-S-š+D-xid*_ 'S writes'

We will claim here that the D-component of the classifier functions syntactically as an object pronominal in this case.[42] This allows the generalization that Antipassives are formed by filling the object slot of the transitive verb with a NON-REFERENTIAL OBJECT. There are thus three non-referential object pronominals: _ʔad-_, _ʔa-_, and _+D_. Of these, the last two are not fully productive; it must be lexically specified that the theme has an antipassive formed with one of them. The first, _ʔad-_, may occur with any theme, including those that have antipassives with _+D_ or _ʔa-_. In such cases, _ʔad-_ refers to an indefinite inanimate object rather than a non-referential object, as seen in (49b). If the theme has no antipassive with _+D_ or _ʔa-_, _ʔad-_ may refer either to a non-referential object or to an indefinite inanimate object, as seen in (50).

(49a) _ka-š-xi'd /ka-š+D-xi'd/_ (THEM.PREF-CL(+D)-write) 'he/she is writing'

(49b) _ʔad-ka-ša-xi'd /ʔad-ka-š-xi'd/_ (thing-THEM.PREF-CL-write) 'he/she is writing something'

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[42] Some may find it questionable to treat a classifier component as an object. Yet there is good independent evidence that this is the case. The reflexive object pronoun, ordinarily _š-+D-_ (that is, pronominal prefix _š-_ with addition of the D-element to the classifier), is simply _+D-_ as object of a noun incorporated into the verb (see section 6); compare _š-da-ʔús'gʷ_ '(clothes) wash themselves (i.e. in a washing machine)' and _∅-ÿa-da-ʔúsgʷ_ 'he is washing his face', with incorporated _ÿá_ 'face' and see further 4.1.1.2.

(50) *ʔad-x̣á* ‘he/she is eating (something)’

In a few lexicalized cases, the prefixes *ʔa-* and *qu-* are used in place of the order +2 prefix *du-* to denote indefinite human subject. The prefix *ʔa-* occurs with certain of the most basic Motion themes with *∅*-classifier, as seen in (51)-(54) and (56); it does not occur in (55), which has *∅+D*-classifier.

(51a) Theme *S-∅-gud** (Motion) ‘single S goes by foot’

(51b) *ʔa‘wagu‘d* ‘one went’[43]

(52a) Theme *S-∅-ʔad** (Motion) ‘plural S go by foot’

(52b) *ʔa‘waʔa‘d* ‘people went’

(53a) Theme *S-∅-nug** (ɢa: Event.) ‘single S sits down’

(53b) *ʔa‘wanu‘g* ‘one sat down’

(54a) Theme *S-∅-nug** (Motion: ·-Pos. with stem *-ʔa**) ‘single S sits’

(54b) *ʔaʔá·* ‘one is sitting’

(55a) Theme *S-∅+D-han** (ga: Event.) ‘single S stands up’

(55b) *wuduwaha‘n* ‘one stood up’

(56a) Theme *S-∅-han** (Motion: n-Pos.) ‘single S stands’:

(56b) *ʔahán* ‘one is standing’

The prefix *qu-* functions as an indefinite human subject pronominal uniquely with the intransitive theme for ‘to say’ (which has an irregular Imperfective with added *x̣’e-* ‘mouth’):

(57a) Theme *MANNER ÿa-S-∅-qa**· (na: '-Process.)‘to say (thus)’:

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[43] Note, however the following exception:
(EN D1280) *qa·-x̣’agdadúgu-dáx̣ wu-du-gu·d-i* (one’s-speech.immanence-from PERF-INDEF-singular.go-SUB)(instead of *ʔa-wu-gu·d-i* (INDEF-PERF-singular.go-SUB))‘when one leaves in the middle of one’s speech/talking’

(57b) *yé'#qu-ÿa-'-wa-qa'* (thus#AREAL-THEM.PREF-PERF-CL-say) 'one said'

(57c) *ÿé'#qu-x̣'a-ÿa-qá* (thus#AREAL-THEM.PREF-CL-SAY) 'one says'

The prefix *qu-* also occurs as a lexicalized object prefix referring to the weather or outdoors, or (sometimes with *ka-*) to an area or expanse.

(58a) Theme *O-∅-k'e·* (ga: ÿ-Stat.) 'O is/becomes good'

(58b) *qu-∅-k'e·* 'the weather is good'

(59a) Theme *O-ɬ+D-t'ix'** (∅: Event.) 'O freezes, becomes frozen'

(59b) *qu-ka-ɬ+D-t'ix'** 'the ground is frozen'

The prefixes *ˀa-* and *qu-* also function as thematic prefixes. These occur only in intransitive and impersonal themes, no doubt because if they were to occur in transitive or objective themes, they would have to compete with the object pronouns. The only derivational string containing the prefix *ˀa-*, namely *ˀa-ÿa-(ŭ-)+D* (∅) 'turning back', occurs only with intransitive motion themes.[44]

The prefix *ˀaš-/ˀaǯ-* occurs also in the nonproductive derivational string *ˀaš-/ˀaǯ-ka-u˘-ɬ+D-...(-a')* 'playing with Ns; playing at V-ing'.

The reflexive prefix *š-* occurs in the derivational string *š-q'e-(+D)* 'pretending to V'.

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[44] This string has been attested with objective motion themes with third person subject, as in the following form from Story 1966:512, p. 104n; however, this form could not be confirmed by EN.
(a) Theme *O-łu-∅-gu*ɢ* (Motion) 'plural O run',
(b) *has#ˀałuÿawdigú*ɢ 'they turned and ran back'
The following exceptional form was also recorded from EN:
(c) *ÿa'#ˀaqunaɬ*ɢ*ád* 'is starting to forget it'

4.1.6.2. Incorporated alienable nouns

The incorporated alienable nouns are lexically extremely restricted, most of them occurring only with one to a few themes.

ÿa‘n- (incorp. *ÿa‘n* ‘hunger’)

šakux- (incorp. *šaku‘x* ‘thirst’)

ÿa-ta- (incorp. *tá* ‘sleep’)

x̣’asagʷ- (incorp. *x̣’a-sé·gʷ* ‘breath, life’)

ɢax̣- (incorp. *ɢa·x̣* ‘weeping’)

xe‘-/xi‘- ((obsolete stem) ‘dusk’; cf. *ša‘ xe‘-ÿí·* ‘shadow of mountain’)

qi‘- ((obsolete stem) ‘dawn’)

ÿi‘-/ÿe‘- ((obsolete stem) ‘time’ cf. *ÿi‘dád* ‘now’)

kanig- (incorp. *kani‘g* ‘report, news’)

ÿaqa- (incorp. *ÿaqá* ‘reproach, curse’)

sa‘- (incorp. *sa‘* ‘name’)

ˀa‘n- (incorp. *ˀa‘n* ‘land’)

na‘- (incorp. *na‘* ‘nation, clan’)

šaˀax̣ʷ- (incorp. *šaˀa·x̣ʷ* ‘bundle’)

yagʷ- (incorp. *ya‘gʷ* ‘canoe’)

hin- (incorp. *hí·n* ‘water, river’)

tux'- ((obsolete stem) ‘knee’)[45]

4.1.7. Order +7: number prefixes

There are only three order +7 prefixes. Two of these are number prefixes, and the third is the reciprocal object pronominal, which irregularly occurs to the left of the plural prefix *has*-.[46]

+7a. *has*- ~ *s*- ‘non-recessive plural’ (PL)

+7b. *dax̣*- ‘distributive’ (DISTRIB)

wuˁš- ‘reciprocal object pronominal’

The prefix *dax̣*- is the more common allomorph of the order +3 distributive prefix, which specifies (or emphasizes) that an inanimate or recessive animate absolutive argument is composed of multiple members or parts viewed as existing or acting individually or separately. This was introduced in 4.1.3.

The prefix *has*-, on the other hand pluralizes a third person animate non-recessive subject and/or object. This prefix optionally has the allomorph *s*- after a vowel, especially in rapid speech. Another surface phenomenon that occurs in connection with this morpheme is that postnominal *#hás*, which forms plurals of kin terms and other NPs referring to persons, is suppressed when followed by the pluralizer *has-*, as seen in (1):

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[45] This prefix occurs only in one base derived from the theme *O-S-∅-cuw** (Motion) ‘S pokes, pushes plural O’, with incorporated *tux'*- ‘knees’ and the aspectual derivational string *ÿan#* (∅) ‘to rest’, meaning ‘S kneels’. Since this incorporate refers to a body part, we expect it to be inalienable. However, this base is intransitive, which means that *tux'*- does not introduce a NO slot into the verb when incorporated and therefore must be inalienable.

[46] Some speakers feel that the combination of *has#* and *daX#* is excessively ‘busy’ and should be avoided.

(59) *ʔax̣-ʔi'š(*#hás) has-qusƛ'i'-ÿi'n*

(1SG-father(*#PL) PL-3.exist-DEC)

'my fathers existed'; 'I had fathers'

Although these two number prefixes are semantically comparable, they differ sharply in a number of very important respects. First, *dax̣-* refers to inanimate or recessive animate entities, whereas *has-* refers to non-recessive animate entities. In the great majority of cases, *dax̣-* refers to inanimate entities, but we find cases like (60), where the referent is clearly animate but recessive.

(60) (EN E570-1) *č'a#ye·qá· ʔax̣-ʔi·n dax̣-ʔa-daɢa-ƛ'ex̣ yé* (just#everyone 1SG-with DISTRIB-THEM.PREF-DISTRIB-dance place) 'everyone was dancing with me'

Note redundant *dax̣-* alongside *daɢa-* here.

Second, *dax̣-* is not obligatory if the absolute argument is plural--besides specifying plurality, it adds a semantic connotation of distributiveness; *has*, on the other hand, is obligatory if the subject and/or object is plural.

(61a) *O-S-s-tin** (ɢa: Event.) 'S sees single O':

(61b) *wu-tu-si-ti'n* (PERF-1PL-CL-see) 'we saw him/her'; 'we saw it/them (inanimate or game animals)'; NOT *'we saw them (people)'

(61c) *dax̣-wutusiti'n* 'we saw them (various things)'

(61d) *has-wutusiti'n* 'we saw them (people)'

Third, and most important, the distributive prefix associates semantically only with an absolutive argument of the verb, i.e. the object of objective verb (see 4.1.3.(22-23)) or of a transitive verb (see 4.1.3.(25-26)), or the subject of an intransitive verb (see 4.1.3.(24)).[47] The plural prefix *has-*, on the other hand, associates semantically with any core argument of the verb, whether subject, object, or both subject and object, as seen in (62-64).

(62a) *x̣ʷasiti'n /∅-wu-x̣a-si-ti'n/* (3-PERF-1SG-CL-see) 'I saw her'

(62b) *has-x̣ʷasiti'n* 'I saw them'

(63a) *x̣ad-wu-si-ti'n* (me-PERF-CL-see) 'she saw me'

(63b) *has-x̣ad-wusiti'n* 'they saw me'

(64a) *ʔa-w-si-ti'n* (3-PERF-CL-see) 'she$_S$ saw him/them$_R$'

(64b) *ʔaš-wu-si-ti'n* (3SAL-PERF-CL-see) 'he/they$_R$ saw her$_S$'

(64c) *has-ʔawsiti'n* 'they$_S$ saw him/them$_R$';

'he/they$_R$ saw them$_S$'

Since inanimates are always referred to with recessive pronominals, this means that only animates--specifically neutral or salient animates--are marked for number by pluralizing with *has-*. When a semantically salient pronominal is pluralized, however, the following constraint applies:

(65) The salient pronominals may not be pluralized with *has-*.

Instead, a pluralized neutral pronominal is used where we would expect a pluralized salient pronominal. The effects of this constraint are illustrated in (64c) and (66c). Note that in the first reading of (64c), *has-* pluralizes the (zero) subject pronominal; whereas in the second reading, *has-* pluralizes the salient object, which

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[47] This theme *qu-ʒ-ti*'* (ɢa-stat.) 'S exists' is, however, the only intransitive theme I know of whose subject can be modified by *dax̣-*. We might, therefore, claim that this is a lexical exception to the generalization that *dax̣-* modifies only objects.

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by rule (65) appears as *ʔa-* rather than *ʔaš-*. An important effect of this rule is that *has-* never occurs with a following salient pronominal.

The prefix *has-* also pluralizes a third person animate NO or PO, in which case it is directly prefixed to the NO or PO it modifies.

(66a) *du-ˀi·-x' ʔad-wu-ƚi-ñ'w* (3-BASE-LOC thing-PERF-CL-study) 'she$_S$ taught him$_R$'

(66b) *ʔaš-ˀi·x' ʔad-wuƚiñ'w* 'he$_R$ taught her$_S$'

(66c) *has-du-ˀi·x' ʔad-wuƚiñ'w* 'she$_S$ taught them$_R$', 'he$_R$ taught them$_S$'

(66d) *du-ˀi·x' has-ʔad-wuƚiñ'w* 'they$_S$ taught her$_R$'

(66e) *ʔaš-ˀi·x' has-ʔad-wuƚiñ'w* 'they$_R$ taught him$_S$'

(67a) *du-ˀi'ǯ wu-'-na'* (3-father PERF-CL-die) 'her father died'

(67b) *has-du-ˀi'ǯ wu'na'* 'their father died'

4.1.8. Order +8: proclitic adjunct phrases

With the exception of one thematic prefix, all order +8 elements are proclitic adjunct phrases. Most of them are directional proclitics, but there are also two manner proclitics. These may be divided into suborders as follows:[48]

+8a. directional proclitic:

yu'# 'back and forth, to and fro, up and down'

ÿa'# 'along', 'down', 'obliquely'

+8b. thematic prefix:

ÿa'# (referring to mental state or activity)

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[48] See also Naish 1966:6.43. The suborder analysis given here is considerably elaborated from that in Naish 1966; I therefore try to indicate clearly the grounds for positing these suborders.

+8c. manner proclitic:

yé’#/ye‘#$^{\mathrm{T}}$ ‘thus, so’

+8d. directional proclitics:

ke‘# ‘up’

ye‘# ‘down’, ‘out of canoe, boat, vehicle’

ÿi‘ɢ#/ÿe‘ɢ#/ʔi‘ɢ#$^{\mathrm{T}}$ ‘down to beach/shore’

da‘ɢ# ‘up from beach/shore, back away from open, off fire’

da‘g# ‘out to sea, out into open, onto fire’; ‘(falling) down’

+8e. inner locational proclitics

variable (all with *-d*, usually varying with *-x̣* and *-de‘*):

ÿan#, *ÿax̣#* ‘ashore’, ‘onto ground’, ‘to rest’

ne‘ł#, *ne‘łx̣#* ‘inside, into house, home’

ha‘d#, *ha‘x̣#* ‘hither, toward speaker’

yú·d#, *yú·x̣#* ‘away, off (to someplace indefinite)’

qux̣# ‘(returning) back’

kux# ‘aground, into shallow water’

invariable (with various postpositions other than *-x’*):

qud# ‘astray, getting lost’ (*-d*)

ÿax̣# ‘to completion’ (*-x̣*)

yux̣# ‘outside’ (*-x̣*)

ya‘x̣# ‘into canoe, boat, vehicle’ (*-x̣*)

hí·nx̣# ‘into water’ (*-x̣*)

ʔux̣# with *ke‘#* ‘out of control, blindly’ (*-x̣*)

qʷá·ɢx̣# with *da‘ɢ#* ‘by mistake, wrongly’ (*-x̣*)

yedx̣#/yedax̣#^{T} ‘starting off, taking off’ (*-dáx̣*)

ÿanax̣#/ÿa‘nax̣^{T} ‘underground’ (*-náx̣*)

+8f. outer locational proclitics (all with *-x’*):

ɢunaÿé’#/ɢuné’# ‘beginning’

ʔa’# ‘there’

ʔá’# with *ÿax̣#* ‘turning over’

šú’# with *ÿax̣#* ‘turning over endwise’

hí·ni# ‘into water’

gági# ‘from hiding into open’

ʔí·ɢi# ‘from woods onto beach/shore’

dá·ɢi# ‘out of water onto beach/shore’

The proclitics of order +8 are a subset of the larger set of BOUND PHRASES, which will be discussed in 4.1.9. An interesting example of a bound phrase is the proclitic *yé’#* of order +8b. Certain themes, e.g. ‘to be thus’, ‘to do thus’, require a bound phrase of manner. The semantically least marked bound phrase of manner is *yé’* ‘thus’. In some themes, this *yé’* has become semantically empty and is therefore merely a thematic element, as in (68b) and (69b).[49] Whether semantically empty or not, this proclitic occurs to the left of the suborder +2a directional proclitics *yu‘#*

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[49] In Tongass Tlingit, these two usages are lexically split: the thematic prefix is *ye‘#*, whereas the non-thematic prefix is *ye’#*.

and (for most speakers) *ÿa‘#*, and to the right of all other proclitics. Some speakers (optionally?) treat *ÿa‘#* as belonging to +2d rather than +2a. The ordering of *yé’#* is illustrated in (69c-e).

(68a) Theme MANNER O-∅-ti*‘ (na: ÿ-Stat.) ‘O is (thus)’

(68b) Theme PO-x’ yé’#O-∅-ti*‘ (na: ÿ-Stat.) ‘O is at PO’

(69a) Theme MANNER O-∅-ni*‘ (na: Event.) ‘O becomes (thus)’, causative MANNER O-S-s-ni*‘ ‘S causes O to become (thus)’

(69b) Theme yé’#O-S-s-ni*‘ (Motion) ‘S handles plural O (objects in disarray)’

(69c) *ˀa‘dé· yé’#yu‘#ˀasini‘g* (*yu‘#(I)g*-Iter. Imperfective) ‘she carries them there (repeatedly)’

(69d) *ˀa‘dé· yé’#ÿa‘#ˀanasni‘n* or *ˀa‘dé· ÿa‘#yé’#ˀanasni‘n* (Prog. Impf.) ‘she is carrying them (along toward) there’

(69e) *ˀa‘dé· ke‘#yé’#ˀanasni‘n* (Progressive Imperfective) ‘she is carrying them up there’

The proclitic *yé’#* is atypical in two ways, however. First, it is the only proclitic of manner. Second, it is the only proclitic which may also occur as a free (non-bound) adjunct phrase.

The status of the thematic prefix *ÿa‘#* and the relative ordering of +8a and +8b require special comment. The order +8b thematic prefix *ÿa‘#*, referring to mental state or activity, appears to have been by origin an incorporated noun, which one would thus expect to occur in order +5.[50] Instead, however, it occurs next to the homophonous preverb *ÿa‘#*, evidently due to the principle of templatic attraction. Thematic *ÿa‘#* is ordered to the left of all directional proclitics of suborders +8d and +8e, including directional *ÿa‘#*.

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[50] Compare PA *yən-/yi·n- ‘mind’ and Eyak *ˀi·lih* (preverb and incorporate referring to state of mind). See also Naish 1966, p. 136, note 6. Many speakers optionally or even obligatorily shorten this prefix to *ÿa#*, thus making it homophonous but disjunctively ordered with *ÿa-*. This shortened variant is phonologically anomalous in that it is the only proclitic consisting of a light syllable (i.e. *CV#*); one suspects that in the course of time it would have gravitated leftward so as to merge with the order +5b prefix *ÿa-* by the operation of the principle of templatic attraction.

(70a) Theme *NO da‘-x’ ÿa‘#qu-šu-s-ge·* (ga: ÿ-Stat.) ‘NO understands (the situation)’

(70b) *aẋ-da‘ ke‘#ÿa‘#qušunasgé·n* (Progressive Imperfective) ‘I am coming to understand’

(71a) Theme *ÿa‘#qu-S-ł+D-Gad*’* (Motion) ‘S wanders lost, in a daze’; subtheme *PO-ẋ ẋ’a-(na‘) ÿa‘#qu-S-ł+D-Gad*’* (0: Event.) ‘S offends (animal) PO’s spirit by speaking carelessly or rashly’[51]

(71b) *ÿa‘#ÿa‘#qunẋałGád* (Progressive Imperfective) ‘I am wandering along lost, in a daze’

The directional proclitic *ÿa‘#* ‘along’, on the other hand, is in complementary distribution with the telic directional proclitics of suborder +8d, and therefore must be included among them. For these reasons, then, these two homophonous *ÿa‘#* morphemes must belong to adjacent suborders.

There is furthermore a third *ÿa‘#* which suppletes the prefix combination *ÿa-u·-* ‘obliquely, circuitously’ in the Iterative Imperfective, thus giving rise to the ÿa‘#ǯ-Iterative type (see 6.5 and 7.2.1.1.5). This *ÿa‘#* would therefore seem historically to be a quite irregular contraction of this prefix combination, and seems to have moved to the proclitic position by the principle of templatic attraction. It is in complementary distribution with both the other *ÿa‘#* prefixes; since it is a directional proclitic, I group it with *ÿa‘#* ‘along’.

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[51] Etymologically, this subtheme appears to be formed from the main theme by addition of the aspectual derivational string *PO-ẋ* (0) ‘moving in place at NO, trying to move while stuck at NO’ and the PP *ẋ’a-na‘/ẋ’a-nÿa‘* ‘in the direction of one’s own mouth’ (with zero allomorph of reflexive object and zero allomorph of *PO-x’* ‘at PO’), hence literally ‘S wanders in place at PO in the direction of S’s own mouth’; metaphorically, the act of insulting the animal’s spirit creates a purgatorium, a closed loop with relation to the animal’s spirit that resembles wandering in the dark.

Among Northern Tlingit speakers one finds variation illustrated by the following, where the second variant appears to be derived from the first by haplology:

(a) *ˀáẋ#ẋ’ana‘#ÿa(‘)#quwλiGád* or *ˀáẋ#ẋ’aÿa(‘)#quwλiGád* ‘he/she offended it by speaking rashly or carelessly’

The latter variant is unique in that the incorporated noun *ẋe-* precedes the proclitic *ÿa‘#* rather than occurring in its usual position in suborder +5c. Here again, we suspect that, given time, the language would smooth out this wrinkle by moving *ẋ’a-ÿa-* leftward into order +5.

The +8d proclitics are by origin bare directional stems. A distributional characteristic that sets them apart from the proclitics of suborders +8e and +8f is that one of these proclitics must occur with a verb in the Progressive epimode.

The +8e proclitics are by origin nominal stems followed by postpositions. The variable +8e proclitics *ÿan#*, *kux#*, *ne‘ł#*, *qux̣#*, *ha‘d#*, and *yú·d#* hold a special place among these. They are all by origin nominal stems with a unique zero allomorph of the Punctual postposition *-d* of the aspectual derivational string *PO-d* (∅) ‘arriving at PO’.[52] As we will see in 6.5, Punctual *-d* of this derivational string is replaced by Pertingent *-x̣* in the Durative epimode and Allative *-de‘* in the Progressive epimode. The first three of the variable +8e proclitics have variants with each of these postpositions, as seen in the following figure. Note that *ÿax̣#* also occurs as an invariable +8e proclitic, and that the the forms with Allative *-de‘* are free PPs and not proclitics.

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[52] Note in particular that *ÿan#* is a proclitic form of *ÿán*, which now means ‘shore (opposed to open water)’ but originally must have meant ‘ground, earth’, as seen in the glosses of *ÿan#*, *ÿax̣#* (< *ÿan-x̣*), *ÿanax̣#* (< *ÿan-nax̣*), and the Proto-Athabaskan cognate *ŋənˀ ‘earth’ (see also 6.5).

Punctual *-d*	**Pertingent *-x̣***	**Allative *-de‘***
ÿan#	*ÿax̣#*	*ÿánde‘*
kux#	*kuxx̣#*	*kúxde‘*
ne‘ł#	*ne‘łx̣#*	*ne‘łdé·*
qux̣#	--	*qúx̣de‘*
ha‘d#	*ha‘x̣#*	*ha‘dé·*
yú·d#	*yú·x̣#*	*yú·de‘*

Figure 21. Variable proclitics of order +8e

There is in fact no empirical evidence available to decide whether these variable proclitics should be grouped with the directional proclitics of suborder +8d or the invariable proclitics of order +8e, since they cooccur with neither group. I have chosen to group them with the latter on the grounds of morphological similarity: suborder +8d consists of bare directional stems, whereas suborders +8e and +8f consist of morphemes analyzable as consisting of stem plus postposition.[53]

The invariable +8e proclitics are by origin stems with various other postpositions, namely Punctual *-d*, Translative *-x̣*, Ablative *-dáx̣*, and Perlative *-náx̣*. Most of these may occur before +8d proclitics (specifically *ÿa‘#*, *ke‘#*, or *da‘ɢ#*).

The +8f proclitics are by origin stems with the Locative postposition *-x’*. These may occur before +8d proclitics (specifically *ÿa‘#*, *da‘ɢ#*, or *ÿi‘ɢ#*) or before the +8e proclitic *ÿax̣#*. The configuration of +8e and +8f proclitics given here is one of several possibilities. It would be possible to collapse suborders +8e and +8f into one suborder if it were not for the distributional properties of *ÿax̣#*: this proclitic may precede the +8d proclitic *ÿa'#* and it may be preceded by the +8f proclitics *ʔá'* and *šú'#*. Perhaps the main reason for the decision to separate the proclitics with Locative *-x'* from the rest is that these do not act as proclitics from the standpoint of tone marking.

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[53] Bear in mind here that although *ÿan#*, *qux̣#*, *ne‘ł#*, and *kux#* have no overt postposition, they are functionally equivalent to free NPs plus the postposition *-d*; this fact points toward an analysis where these are portmanteau PPs.

Comparing the phonological and syntactic behaviors of the order +8 proclitics, we can see that there are varying degrees of procliticity. Some of the suborder +8e proclitics and all the +8f proclitics have high tone in Northern Tlingit, and so do not behave as proclitic stems with respect to tonal development. In addition, for some Northern Tlingit speakers the suborder +8d proclitics *ke'#* and *ye'#* vary between low and high tone; that is, we find *ke·#~ké·#* and *ye·#~yé·#*.[54]

Syntactically, on the other hand, most of the simplex order +8 proclitics may be focused.[55] Such focusing is subject to a constraint:

(72) The focused proclitic must be the only phrase to the left of the verb.

This constraint is readily accounted for by the autolexical treatment proposed in 2.2. The proclitic is syntactically within the verb complex according to 2.2.1.(39); but in the discourse-functional structure, it is a forephrase and therefore must be utterance-initial according to 2.2.1.(28). Moreover, this situation leads to a mismatch between the syntax and the semantics. Although in syntactic terms it is the proclitic that is focused, semantically it would appear that the scope of the focus is, or may be, the whole clause. In (74c), where there is no phrase outside the verb complex to serve as a host for *#ásí* ‘apparently, it would seem’, the proclitic *ÿax̣#* assumes this function; it seems unlikely that this proclitic is semantically focused, since its meaning is hardly isolable.

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[54] I am not at present certain what the basis of variation is, but it seems most likely that these alternants are in free variation.

[55] Focusing is not possible with the innermost proclitics *yu'#* and *ÿa'#*, and combinations like *ʔux̣#ke'#* and *qwá·ɢx̣#da'ɢ#*.

(73a) Theme *S-∅-qux̣** (Motion) ‘S goes by boat’, with *ÿan#* (∅) ‘ashore’

(73b) *ÿan#ˀuwaqúx̣* (Perfective) ‘he went ashore (by boat)’

(73c) *ÿan#áwé ˀuwaqúx̣* ‘it’s that he went ashore’

(74a) Theme *S-∅-gud** (Motion) ‘S goes on foot’, with *ÿax̣#ÿa-u·-...-(ÿ)án* (na: root-Process.) ‘moving (back) into place’

(74b) *ÿax̣#ÿagɢi‘gu‘dán* (Future) ‘you will become reformed, come around (to the right way of thinking and acting)’

(74c) (EN D734) *ÿax̣#ásí ÿagɢi‘gu‘dán* ‘it looks like you will come around’

Examples of focusing like (73c) and (74c) give rise to a morphological anomaly: an enclitic is added directly to a proclitic. If the generalization that an enclitic must follow a full phrase is to hold true, then we must maintain that in (73c), *ÿan#* constitutes a phrase--specifically, as we will see in the following section, a bound adjunct phrase. On the other hand, proclitics are subject to strict ordering constraints within the verb complex that do not otherwise apply to bound phrases.

We may thus state that order +8 proclitics are a subset of bound adjunct phrases, which are in turn a subset of adjunct phrases.

The set of proclitics is, however, by no means a closed set. Indeed, we occasionally find cases where bound or even free PPs whose usual place is outside the verb complex occur to the right of directional proclitics.

(75) EN D303:

ke'#s-du-da'#ya'#qušugux̣sagé·

(up#PL-3NEU-about#mentally#comprehension.will.come) (Future) 'they will understand'

(for more usual *has-du-da' ke'#ya'# qušugux̣sagé·*)

(76) EN D1231:

ne·ł#ˀa-·n#ˀa·wagúd

(inside#it-with#INDEF.singular.came)

'someone brought it inside', lit. 'someone came inside with it'

(for more usual *ˀa·n ne·ł#ˀa·wagúd*)

(77) EN: *du-ˀi·n ne·ł#ˀa·waˀa·d*

(3-with inside#INDEF.plural.came)

'someone came inside with him/her'

(not **ne·ł#du-ˀi·n#ˀa·waˀa·d*)

Two factors appear to determine incorporability. First, the incorporated PP must be short, and if it contains an object (i.e. a possessor), this object must itself be incorporated (i.e. pronominal). Second, the incorporated PP must be semantically an argument of the verb. It is for this reason that incorporation is allowed with *ˀa·n* in (76), but disallowed with *duˀi·n* in (77).

4.1.9. Bound phrases

Leftmost in the verb complex are bound phrases. These are phonologically and syntactically independent phrases which are nevertheless positionally restricted so that they must occur as close to the verb as possible. As we have stated in 2.2.1, there are two types of bound phrases: indefinite object NPs, which we may call BOUND ARGUMENT PHRASES, and PPs that are required by the verb base, either by the theme or by a derivational string added to the theme, which we may call BOUND ADJUNCT PHRASES.

Because bound adjunct phrases are required by the verb, the verb would not make sense without them. Such phrases therefore either become part of the verb word, in which case they are called proclitics (see 4.1.8), or else occur as close to the verb word as possible.[56]

There are three types of bound adjunct phrases: INSTRUMENT, MANNER, and LOCATION. Instrument phrases are required by the Instrumental derivational string *PO-ǯ s-* 'acting with PO, using PO'. Manner phrases are required by certain themes and by the Comparative derivational string *MANNER ka-/ga-ŭ-* (na: Stat.) '(possessing an attribute) to such a degree'. Locational phrases are required by numerous aspectual derivational strings, used especially with verbs of motion.

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[56] Note, however, that bound phrases may be focused, provided no other phrase intervenes between the focused bound phrase and the verb complex; see the discussion around 2.2.1.(40).

A few simple examples of verbs with locational phrases will serve to illustrate the nature of bound adjunct phrases. In (78), we see that a phrase with postposition *-d* plus Telic aspect meaning ‘arriving at PO’ must precede the verb. The reason for this is that, as seen in (78d), the Telic form of a motion verb occurs only where it is required by a locational phrase; it cannot occur without such a phrase. Therefore, all such locational phrases are bound.

(78a) Theme *S-∅-gud** (Motion) ‘singular S goes on foot’, with derivational string *PO-d* (0) ‘arriving at PO’

(78b) *ˀaš-x̣án-d ˀuwagúd* (3SAL-proximity-PUNCT 3.came) ‘he$_R$ came to her$_S$’

(78c) **ˀuwagúd ˀaš-x̣ánd*

(78d) **ˀuwagúd*

In (79b), on the other hand, we see that the Atelic form of a motion verb (*wu‘gu‘d*) can occur without a locational phrase. A locational phrase (here with postposition *-de‘* ‘toward’) may be added, in which case it is FREE, that is, not bound. Although it is more usual for such a phrase to precede the verb, it may follow it as well.

(79a) with derivational string -- (na) ‘moving’ or -- (ga) ‘starting off’:

(79b) *wu‘gu‘d* ‘he went’, ‘he left’

(79c) *ˀaš-x̣án-de‘ wu‘gu‘d* (3SAL-proximity-ALL 3.went) ‘he$_R$ went to her$_S$’, ‘he$_R$ left to go to her$_S$’

(79d) *wu‘gu‘d ˀaš-x̣án-de‘* ‘id.’

Although *wu‘gu‘d* may occur without a locational phrase, it is not the case that any locational phrase occurring with this verb is free, as seen in (80), where

ʔá-d is a bound string. This is because *wu‘gu‘d* has a special meaning in the context of this bound phrase.

(80a) with aspectual derivational string *ʔá-d* (na) ‘moving about’:

(80b) *ʔá-d wu‘gu‘d* ‘he is walking about’

(80c) **wu‘gu‘d ʔá-d*

It is rare for a verb to occur with two separate non-proclitic bound phrases, but at least one such case exists. This is illustrated below.

(81a) Theme *ʔa-S-wu*·* (Ø: s'-Process.) ‘S sends (for something)’, with Instrumental string *PO-ǯ ʔa-S-s-wu*·* ‘S sends PO (thing sent)’:

(81b) *ƛiy̆-ǯ ʔax̣ʷsiwú· /ʔa-wu-x̣a-si-wú·/*

(meat-INSTR THEM.PREF-PERF-1SG-CL-send) ‘I sent meat’

(81c) *ƛiy̆ ʔá-ǯ ʔax̣ʷsiwú·* ‘id.’

with aspectual derivational string *NO ǯi‘-d* (Ø) ‘giving to NO’:

(81d) *ƛiy̆ du-ǯi‘-d ʔá-ǯ ʔax̣ʷsiwú·* ‘I sent meat to him’

(81e) **ƛiy̆-ǯ du-ǯi‘-d ʔax̣ʷsiwú·*

(81f) **du-ǯi‘-d ƛiy̆-ǯ ʔax̣ʷsiwú·*

In (81b), *ƛiy̆-ǯ* ‘meat’ is a bound phrase formed with the Instrumental postposition -ǯ. The PO (here *ƛiy̆*) may optionally be extracted from the PP with substitution of the resumptive anaphor *ʔá*, as seen in (81c). Where the bound locational phrase *du-ǯi‘-d* ‘(giving) to him’ is added, the result is awkward; one of the bound phrases inevitably causes the other to violate the constraint on being separated from the verb word. The solution is to make one of these bound phrases minimally disruptive by extracting the PO, as seen in (81d).[57]

4.1.10. Summary of preradical elements

The preradical elements are displayed for reference in Figure 22, which I have broken into three more or less equal-sized chunks: PROCLITICS (order +8), INCORPORATES (orders +7 through +5), and INNER PREFIXES (orders +4 through +1). This division seems justifiable on linguistic grounds: the inner prefixes constitute the oldest part of the verb word, where the bulk of the morphophonological rules apply; the incorporates are mainly incorporated objects; and the proclitics are mainly bound PPs.

4.2. Postradical elements; the positional root

The ordering of the postradical elements is not so clearly templatic as that of the preradical elements. Instead, the ordering of the postradical elements reflects rather closely the order in which they combine semantically.

Postradical elements are suffixes and stigmatic infixes, which will referred to jointly as SUFFIXES. The use of this term to refer to infixes as well as true suffixes is

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[57] One might ask why it is not possible to extract the object of the postposition of the other bound phrase, namely *du-ǯi‘*, giving **du-ǯi‘ ƛiÿ̌-ǯ ˀád ˀax̣wsiwú·*. The reason seems to be a lexical constraint: the relational noun *NO-ǯi‘* ‘(in) NO’s possession’ is simply not extractable.

Figure 22. Verbal prefixes and proclitics

PROCLITICS

+8f	**+8e**	**+8d**	**+8c**	**+8b**	**+8a**
ɢunaÿé’#/*ɢuné’#*	*ÿan#, ÿax̣#*	*ke‘#*	*yé’#*/*ye‘#*	*ÿa‘#*	*ÿa‘#*
ʔá’#	*ne‘ł(x̣)#*	*ye‘#*			*yu‘#*
šú’#	*ha‘d#, ha‘x̣#*	*ÿi‘ɢ/ÿe‘ɢ/ʔi‘ɢ#*			
hí·ni#	*yú·d#, yú·x̣*	*da‘ɢ#*			
gági#	*qux̣#*	*da‘g#*			
ʔí·ɢi#	*qud#*				
dá·ɢi#	*yux̣#*				
	ya‘x̣#				
	etc.				

INCORPORATES

NUMBER		OBJECT PRONOMINAL AND ALIENABLE			INALIENABLE	
+7b	**+7a**	**+6**		**+5c**	**+5b**	**+5a**
dax̣-	*has-~s-*	*x̣ad-~ʔax̣-*	*ÿa‘n-*	*ǯi-*	*ÿa-*	*ka-*
wu‘š̌-		*ha‘-*	*šakux-*	*x̣’e-*		
		ʔi-	*ÿata-*	*tu-*		
		ÿi‘-	*x̣’asagʷ-*	*ša-*		
		ʔa-~Ø	*ɢax̣-*	*łu-*		
		ʔa-	*xe‘/xi‘-*	*se-*		
		ʔaš-	*qi‘-*	*sa-*		
		š-	*ÿi‘-~ÿe‘-*	*x̣a-*		
		qu-~qa‘-	*kanig-*	*šu-*		
		ʔad-	*ÿaqa-*	*gu-*		
		ʔa‘-	*sa‘-*	*ta-*		
			etc.	etc.		

INNER PREFIXES

SCHETIC PREFIXES					DISTR. PREF.	SUBJ. PRON.	CLASSIFIER		
+4e	**+4d**	**+4c**	**+4b**	**+4a**	**+3**	**+2**	**+1c**	**+1b**	**+1a**
ga-	*ga-*	*u-*	∅	*ÿu-*	*daɢa-*	∅	∅	∅	∅
		ŭ-	*na-*	*ɢa-*		*x̣a-*	*ł-*	*+D*	*+I*
		u·-	*ɢa-*			*tu·-*	*s-*		
						i·-	*š-*		
						ÿi-			
						du-			

simply for convenience sake. Suffixes may be divided into two main groups: ROOT SUFFIXES, which are added to the root to form a stem; and STEM SUFFIXES, which are added to the stem.

In describing verb stem variation, I will use the following terms to refer to morphological groupings of root suffixes. STIGMATIC SUFFIXES consist of a stigma (·, ‘, ’); these are actually infixes. SONORANTAL ROOT SUFFIXES consist of a sonorant; these are *-ÿ* and *-n*. OBSTRUENTAL ROOT SUFFIXES consist of an obstruent; these are the durative suffixes of order -2 and the suffixes *-x’* and -G of order -1. SYLLABIC ROOT SUFFIXES are those that contain a vowel; these are the other suffixes of order -1.

The POSITIONAL SUFFIX *-n* suffix is unique. In most Positional Imperfectives, this suffix behaves as an inner mode suffix; it is simply added to the verb root to form a verb stem. With a few Positional Imperfectives formed from open roots, however, this suffix actually forms a new root. That is, the morpheme resulting from adding the suffix *-n* is not specified for stigma, and so must be considered a variable closed root. By the definitions given here, then, the positional suffix is in this case neither a root suffix nor a stem suffix (see 5.1.2). We will therefore consider the combination of root plus positional suffix to be a type of suppletive root, one that must be specified in the lexicon. For exemplification, see 7.2.4.

4.2.1. Order -1: derivational suffixes

Suffixes of orders -1, -2, and -3 are ROOT SUFFIXES, that is, they are added to a root to form a stem. The combination of a root plus suffix of order -1 and/or -2 behaves phonologically like an invariable stem; that is, it displays no stem variation.

The order -1 suffixes are derivational:

· (lengthened stem: occurs in stems of Stative themes)

-ÿ (telic perfective stem; occurs in stems of Stative themes and denominal *O-s-...(-ÿ ~ -i‘)* ‘O has N’)

-i‘ (occurs only in deverbal *O-s-...-i‘* ‘O is liable (to cause one) to V’ and denominal *O-s-...(-ÿ ~ -i‘)* ‘O has N’)

-a‘ (occurs only in denominal or deverbal *ˀaš-ka-u-S-ł+D-...-a‘* ‘S plays at N/V-ing’)

-x̣a‘ (occurs only in the Errative *ÿa-s-...-x̣a‘* (0: Process.) (with transitive themes of throwing or shooting) ‘missing’)

-(ÿ)án (occurs only in the Restorative *ÿax̣#ÿa-u-...-(ÿ)án* (na: Process.) (with Motion and Active themes) ‘moving into place; redoing, doing anew’)

*-(ÿ)á*ɢ^{w} ~ *-č’á*ɢ^{w} (occurs in denominal or deverbal *O-S-D-...-(ÿ)á*ɢ^{w} ‘S un-V-s, dis-V-s, de-N-s O’ and denominal *O-s-...-(ÿ)á*ɢ^{w} ‘O lacks N’)

-ág^{w} (occurs only in a few themes)

-áł’ ~ -č’áł’ (occurs only in a few themes)

-šán ~ -č’án (occurs only in deverbal *O-ka-u-s-...-šán ~ -č’án* ‘O is good for V-ing; O is good to V’)

-ɢ (cooccurs with *-x’*)

-x’ (occurs in *O-(+D)...(-x’)* ‘O has plural N’)

-g ~ -g^{w}*-d* (creates objective Stative verbs meaning ‘O is prone to V, quick to V’)

Only two of these occur in relatively productive aspectual derivational strings: *-(ÿ)án* in the Restorative and *-x̣a‘* in the Errative. The rest are listed for reference.[58] Other stem-final consonants are with varying degrees of certitude to be analyzed as root suffixes; most of these are identical with order -2 suffixes.

4.2.2. Order -2: durative suffixes

Durative suffixes are suffixes that combine with the root to create the stems of Durative epiaspectual forms.[59] There are two suborders. Most of these suffixes are given distinct names by Naish-Story; these are listed for reference, but will not be used here.[60]

-2a. Inner durative suffixes

‘ (fading stem)

-g ~ *-gʷ* (Naish-Story ‘repetitive’)

-x̣ (Naish-Story ‘habitual’)

-ǯ (Naish-Story ‘frequentative’)

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[58] See Story 1966:4.32.

[59] Rarely, these may combine with a derived stem rather than a root, although there may be a question as to the grammaticality of such formations. The one generally admissible combination of derivational suffix plus aspectual suffix is *-(ÿ)án-g*, found in the ***yu‘#I-g*** Durative of the Restorative string *ÿa-s-...-(ÿ)án*.

[60] See Story 1966:6.41. Naish-Story treat the suffixes *-t’* and *-ł’* as derivational rather than aspectual, probably due to their relatively limited productivity; see Story 1966:4.325. *-ł’* in particular occurs only with one theme. I treat them as derivational because they occur only in the Durative epiaspect and are lacking elsewhere; this shows they are not part of the verb theme.

-2b. Outer durative suffixes

-d /*-t*/ (Naish-Story 'successive')

-x' (Naish-Story 'collective')

-t'

-s' (Naish-Story 'serial')

-ł'

Two morphophonemic irregularities should be noted at this point.

(82) The suffix *-g* is regularly rounded to *-gʷ* after roots containing the vowel *u* and open roots ending with non-umlauting *a* (see 5.1.2), as well as in the combination *-gʷ-d* (see below).[61]

(83) The suffix *-d* is underlyingly /*-t*/ for many speakers, as evidenced by the fact that it surfaces as *-t* before suffixes beginning with *-i*.

There is only weak evidence for dividing the durative suffixes into these two groups. First, there are two cases where the order -2 suffixes are ordered with respect to each other. These are the combinations *-x̣ʷ-x'* and *-gʷ-d*. These occur only after open roots, and are both variants of monomorphemic suffixes: *-x̣ʷ-x'* is a variant of *-x̣* which occurs only with two open roots, and *-gʷ-d* is a variant of *-g* which occurs only in Motion themes with Positional Imperfectives (see 7.2.4). Note that both these combinations exhibit irregular rounding.

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[61] Note that the combination of stem *-ɢu*·* plus *-g* irregularly yields *-ɢé·gʷ*, by dissimilation from **-ɢʷé·-gʷ*, which occurs in the theme *O-S-ł-ɢu*·* (ɢa: gʷ-Process.). There are occasional cases of irregular rounding of the suffixes *-g* and *-x'* after certain stems containing the vowel *a*, e.g. *-λaɢ-xʷ* and *-λaɢ-gʷ*, in the theme *O-ÿa-S-Ø-λaɢ**(na: Event.) 'S wins, overcomes, earns, reaches O'.

Second, only the inner durative suffixes occur as postradical components of Duratives of aspectual derivational strings added to Motion themes (see 6.5). Both inner and outer durative suffixes occur as the postradical components of Duratives of other types of themes.

4.2.3. Order -3: inner mode suffixes

The inner mode suffixes are the root suffixes primarily responsible for verb stem variation. (As noted above, the first three of these are properly speaking infixes.) The combination of root plus inner modal suffix results in a stem.

-3. Inner mode suffixes.

·

‘

’

-ÿ

-n

The ‘-stem and ÿ-stem combine with the order -4 suffix -ǯ, and the n-stem combines with the order -4 suffixes *-(n)i‘* and *-ín*.

These suffixes are effectively zeroed out after stems formed of root plus derivational and/or durative suffix. As noted above, such stems behave phonologically like invariable roots, and invariable closed roots are precisely those that do not show the stem variation that, with variable closed stems, results from adding the inner mode suffixes.

4.2.4. Order -4: outer mode suffixes and the auxiliary

The suffixes of orders -4 and -5 are STEM SUFFIXES; that is, they are added to the stem formed by the root plus root suffixes. Order -4 consists of outer mode suffixes and forms of the auxiliary. All the outer mode suffixes may cooccur with inner mode suffixes.[62]

-4. Outer mode suffixes and the auxiliary

-ǯ (occasional suffix: cooccurs with telic perfective stem)

-ni‘ ~ *-i‘* (conditional suffix: occurs only with progressive stem)

-ín (consecutive suffix: occurs only with progressive stem)[63]

#nu‘ǯ/#ni‘ǯ$^{\mathrm{IT}}$*/#nugǯ*[64] (Habitual auxiliary)

#ní·g$^{w\mathrm{ST,IT}}$*/#nú·g* (Consecutive auxiliary)

#nígʷni‘$^{\mathrm{ST,IT}}$*/#núgni‘* (Conditional auxiliary)

#ɢanígún$^{\mathrm{IT}}$*/#ɢaníg*$^{w\mathrm{ST}}$*/ɢanúgún* (Consecutive auxiliary)

The conditional and consecutive suffixes are in complementary distribution with the epimodal suffixes, because epimodally marked forms of Circumstantial modes do not exist. The occasional suffix, however, does occur with epimodal suffixes. The allomorphy found with the conditional suffix is described in (84):

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[62] See Story 1966:6.42 for the conditional and consecutive suffixes. Naish-Story do not distinguish the Habitual from the Durative with -ǯ, in both cases treating -ǯ as an aspect suffix. For the auxiliary see Naish 1966:7.56, 7.61.

[63] This suffix is omitted in Southern Tlingit.

[64] The first form is usual; the second form is found in Interior Tlingit; and the third form appears to be confined to Yakutat Tlingit. These forms are regularly reduced to *#nuǯ/#niǯ/#nugʷǯ* in the non-Decessive Attributive form. Some Northern Tlingit speakers also use the first reduced form as the regular non-Decessive form as well. These reduced forms never occur with the Decessive suffix.

> (84) The conditional suffix has the allomorph *-ni'* after the progressive stem of a closed root, and the allomorph *-i'* after the progressive stem of an open root.

The auxiliary appears historically to be based either on the theme *O-S-∅-nigʷ**(0: Process.) 'S feels O' or on the theme *S-∅-nigʷ**(Motion) plus aspectual derivational string *PO-d* (0) 'S feels like (having/doing) PO'. The Circumstantial mode auxiliaries are the regular Realis forms with third person subject for the latter theme (but with procliticization of the preceding verb and no trace of the postposition *-d*). The Habitual auxiliary is a contraction of expected **ʔuni'gʷǯ ~ ʔunígʷǯ*.

It seems probable that at one time the auxiliary was fully inflected, occurring in all possible modes, and that subsequently all but these four forms became obsolete. Why would this be the case? A likely answer to this question is suggested by the observation that the result of adding order -4 outer mode suffixes directly to the stem is phonologically awkward where the stem ends in a consonant cluster; such combinations are regularly avoided by using the composite modes with auxiliaries in place of the simplex modes with these suffixes, namely the Perfective Habitual (formed with -ǯ), the Conditional (formed with *-(n)i'*), and the Contingent (formed with *-ín*). Furthermore, there is a tendency to avoid the simplex Consecutive with invariable roots and stems, since they do not distinctively manifest the ·-stem, which seems to be perceptually important in recognizing this mode; in this case too, the composite Consecutive is preferred. In sum, the reason for the retention of just these auxiliaries seems to be in part that they are useful in avoiding phonologically or perceptually awkward simplex forms. For further discussion and exemplification see 6.2.

The procliticization of the preceding verb to the auxiliary in most cases has the expected result that the unprotected verb stem is reduced and does not develop high tone in Northern Tlingit, just as with attributive verb forms. For details see 5.1.2.(21)-(27).

The auxiliary is inflected only for mode, epimode, and clause type. Inflection for status, epiaspect, and core arguments is carried by the preceding verb. As indicated in 6.2, the Imperfective and Future tenses occur before all forms of the auxiliary, and the Consecutive occurs before the Circumstantial mode forms of the auxiliary just in case the theme is Eventive and thus has no Continuous (unmarked) Imperfective. Thus only root suffixes may precede the auxiliary. Suffixes of order -4 are included in the auxiliary itself, and suffixes of order -5 are added to the auxiliary. This is the reason for grouping the auxiliary with suffixes of order -4.

4.2.5. Order -5: epimode and clause-type suffixes

Last in the verb complex come the epimode and clause-type suffixes. Note that all these suffixes begin with *-i*, except for the second allomorph of the optative suffix. As noted in 3.3.2.3, these suffixes are found only with the Declarative modes and thus in complementary distribution with the conditional and contingent suffixes of order -4, which are formally similar to them.[65]

-5. Epimode and clause type suffixes

-i‘ (subordinative suffix)

-i‘n (decessive suffix)

*-i‘*ɢ ~ -ɢ (optative suffix)

-i (attributive suffix)

The second allomorph of the optative suffix deserves some comment. It is evidently the older of the two variants,[66] and displays the irregular lengthening of the A'-Imperfective stems of open roots described in 5.1.3.(20c). Its distribution is described in (85).

(85) The allomorph -ɢ of the optative suffix occurs only after open stems, where it is preferred to *-i‘*ɢ; the allomorph *-i‘*ɢ occurs after either closed or open stems.

Furthermore, the following rules apply to attributive suffix:

(86) The attributive suffix is never high-toned in Northern Tlingit.

(87) The Attributive forms of Decessive verbs are constructed simply by replacing the Decessive suffix with the attributive suffix *-i*.

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[65] See Story 1966:6.43-46. Note that Naish-Story's 'purposive' is here treated as the Hortative with the addition of the postposition *-d*; the preceding *-i‘* is optionally added to the Hortative whether or not *-d* is added.

[66] This is also found in the denominal string *ka-ł-...*-ɢ 'without N' and is evidently cognate with the Eyak negative suffix -ɢ.

(88) In non-Decessive Attributive forms, the attributive suffix is added only to verb forms with +I classifiers; elsewhere no suffix is added.

For further detail on the construction of Attributive verb forms, see 5.1.3 and 6.4.

4.2.6. Summary of postradical elements

The verbal suffixes are summarized in Figure 23.

DERIVATIONAL	**DURATIVE**		**INNER MODE**	**OUTER MODE**	**EPI-MODE**
-1	**-2a**	**-2b**	**-3**	**-4**	**-5**
·	‘	*-d*	·	*-ǯ*	*-i‘*
-ÿ	*-g(*^{w}*)*	*-x’*	‘	*-(n)i‘*	*-i‘n*
-i‘	*-x̣*	*-t’*	’	*-ín*	*-(i‘)ɢ*
-a‘	*-ǯ*	*-s’*	*-ÿ*	*#nu‘ǯ*	*-i*
-x̣a‘		*-ł’*	*-n*	*#ní·g*^{w}	
-(ÿ)án				*#nígni‘*	
-(ÿ)áɢ^{w}				*#ɢanígún*	
-ág^{w}					
-áł’ ~ -č’áł’					
-šán ~ -č’án					
-x’					
-g ~ -g^{w}*-d*					

Figure 23. Verbal suffixes and enclitics

CHAPTER 5

PHONOLOGICAL PROCESSES WITHIN THE VERB

5.1. Root types and radical morphophonemics

5.1.1. The stigmatic basis of closed stem variation

The stigmatic system of Tongass Tlingit provides us with a window into the historical development of verb stem variation, in particular that of variable closed roots. Tlingit verb roots are divisible into two groups, VARIABLE and INVARIABLE, on the basis of whether the stigma and/or tone associated with the vowel may vary. Variable closed roots may be further be divided into two subgroups, CVC* ROOTS and CVC*’ ROOTS, on the basis of their behavior in Tongass Tlingit. CVC*’ roots can end only in non-glottalized consonants, and have two stem variants, one without stigma and one with stigma ’. CVC* roots have three stem variants, one without stigma, one with stigma ·, and one whose stigma is ‘ if the final consonant is non-glottalized and ’ if it is glottalized. The following table summarizes Tongass closed verb stem variation (C° represents a non-glottalized consonant, and C’ a glottalized consonant):

Root type:	**CVC°***	**CVC’***	**CVC°*’**
Reduced stem	*CVC°*	*CVC’*	*CVC°*
Lengthened stem	*CV·C°*	*CV·C’*	*CV’C°*
Fading stem	*CV‘C°*	*CV’C’*	*CV’C°*

Figure 24. Stem variation for closed roots (Tongass Tlingit)

The REDUCED STEM occurs before consonantal suffixes; sonorant suffixes, however, are deleted after closed roots and thus visible only after open roots. Stem vowel reduction in Tlingit is historically comparable to that of PA, which occurs before obstruent suffixes (see Leer 1979: 43-44). The LENGTHENED STEM occurs in various combinations of schetic categories, such as one type of Realis Imperfective and the Realis Future, and is historically comparable to the lengthened stem seen in the Eyak Customary (with *-k’*) and the PA Momentaneous Imperfective and Prohibitive-Optative (see Leer 1979: 41-42). The FADING STEM is taken to be the unmarked stem variant; it corresponds to the fading stem of variable open roots. Closed stem variation can thus be reduced to a small set of historically and phonologically motivated principles:

(1) The fading stem is characterized by stigma ‘, the lengthened stem by stigma ·, and the reduced stem by lack of stigma.

(2) The stigma ‘ is replaced by ’ before *C’*.

(3) The root type *CVC*’* allows only the stigma ’, which replaces ‘ and ·.

It is possible to account for (3) quite naturally if we assume that an earlier stage of Tlingit, like Eyak, had a two-dimensional stigma system with the following contrasts: *_V_, *_V'_, *_V’_, *_V·_, and *_V·’_. We would then assume that *_V’_ and *_V·’_ subsequently merged as _o’_. The fading stem of CVC*’ roots would at this earlier stage have been *_CV’C_, and the lengthened stem *_CV·’C_; these would subsequently have merged, producing the forms we see now. One additional assumption would also provide an elegant explanation of why there are no CVC*’ roots with glottalized consonants: there could have been a rule that simplified *_CV·’C’_ to *_CV·C’_, applying before the merger of *_V’_ and *_V·’_. CVC’*’ roots would thus have become indistinguishable from CVC’* roots.

In Northern Tlingit, the evolution of the stigmatic system into a tonal system has resulted in a radical restructuring of the original system, one that completely obscures the principles stated above:[1]

Root type:	**CVC°***	**CVC’***	**CVC°*’**
Reduced stem	_CV́C°_	_CV́C’_	_CV́C°_
Lengthened stem	_CV́·C°_	_CV́·C’_	_CV́·C°_
Fading stem	_CV·C°_	_CV́·C’_	_CV́·C°_

Figure 25. Stem variation for closed roots (Northern Tlingit)

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[1] Compare Story 1966:4.221.

As Figure 25 shows, the CVC'* roots and the CVC°*' roots have merged, leaving the CVC°* roots isolated. The new system has characteristics curiously similar to those of the old one. We may distinguish roots with two variants (CVC'*/CVC°*' roots) and roots with three variants (CVC°* roots); the latter may end only in non-glottalized consonants. Note also that there is no loss of information in the Northern Tlingit system; given the stem variation and whether the final consonant is glottalized, we can predict the stem variants in the stigmatic system. Examples of closed stem variation are given below, where the reduced stem is illustrated by the ǯ-Durative and the Telic Realis Perfective, the lengthened stem by the Realis Future, and the Fading stem by the Irrealis Future:

(4) Theme *O-S-ł-ˀad** (Motion) ‘S handles plural O’

Reduced stem	
with -ǯ	*ke‘#x̣łaʔádǯ* ‘I keep picking them up’
with -ÿ[2]	*ke‘#x̣ʷłiʔád* ‘I picked them up’
Lengthened stem	*ke‘#gʷqałaʔá·d* ‘I will pick them up’
Fading stem	*ƛé·ł ke‘#gʷqałaʔa‘d* ‘I won’t pick them up’

(5) Theme *O-S-ł-ł'at'** (Motion) ‘S handles O with tongs’

Reduced stem	
with -ǯ	*ke‘#x̣łał'át'ǯ* ‘I keep picking it up with tongs’
with -ÿ	*ke‘#x̣ʷlił'át'* ‘I picked it up with tongs’
Lengthened stem	*ke‘#gʷqałał'á·t'* ‘I will pick it up with tongs’
Fading stem	*ƛé·ł ke‘#gʷqałał'a't'* ‘I won’t pick it up’

---

[2] The sonorant suffixes are deleted after a closed stem; see 5.1.4.(6).

(6) Theme *O-S-∅-šad*'* (Motion) ‘S handles sing. O quickly’

Reduced stem	
with -*ǯ*	*ke‘#x̣ašádǯ* ‘I keep grabbing it up’
with -*ÿ*	*ke‘#x̣ʷa‘šád* ‘I grabbed it up’
Lengthened stem	*ke‘#gʷqašá’d* ‘I will grab it up’
Fading stem	*ƛé·ł ke‘#gʷqaša’d* ‘I won’t grab it up’

The fact that closed verb stem variation in Tongass Tlingit is directly correlatable with that of PA and Eyak thus provides further confirmation of the hypothesis that the tone system found outside of Tongass Tlingit evolved out of the stigmatic system seen in Tongass Tlingit, rather than the other way round.

From this point on we will refer to the stem variants by the suffix or stigma that is added to the root to form the stem. Thus the lengthened stem will be called the ·-STEM, the fading stem the ‘-STEM, the reduced stem the C-STEM (that is, a stem to which a suffix consisting of or beginning with a consonant is added). In addition, we will use the abbreviation *-X* for an obstruent suffix or a syllabic suffix, and the term X-STEM for a stem with such a suffix.

5.1.2. Root types

The difference between invariable roots and variable roots may now be stated as follows:

(7) The stigma of an invariable root is specified. If an inner modal suffix is added to an invariable root, the resulting stem is identical with the root,

except that most invariable open stems undergo umlaut and have overt *-n* in the n-stem.[3]

(8) The stigma of a variable root is unspecified; the stigma of a given stem form derived from the root is determined by the root class and the root suffix.

As we have seen, variable closed roots are divisible into two groups on the basis of which stigmata they occur with: CVC* ROOTS and CVC*’ ROOTS. Variable open roots, on the other hand, are divisible into two main groups on the basis of which stigma occurs with obstruental and syllabic suffixes: CV*· ROOTS and CV*‘ ROOTS. Two CV*· roots with vowel *a* (*-na**· ‘die’ and *-ya**· ‘carry in pack’), irregularly do not undergo umlaut and cause rounding of a following roundable consonant. Two other roots of this shape (*-x̣a**· ‘paddle’ and *-ša**· ‘marry’) exhibit this same behavior only before the suffix *-x’* (yielding *-x̣á·x*^{*w} and *-šá·x*^{*w}), and not, for example, in the n-stem (*-x̣é·n* and *-šé·n*).[4] Furthermore, a couple CV*‘ roots (*-ni**‘ ‘happen’ and *-ÿa**‘ ‘happen, go’) have fading stigma in the n-stem, as opposed to all other open roots, which have lengthened stigma. I will treat these as irregularities rather than setting up subgroups of open roots to handle them.

---

[3] This does not appear to be true of *cá’* (theme *O-ɬ-cá’* (ga-stat.) ‘O is fragrant’), which is the sole attested invariable open root of the shape *-CV’*, and for which the following progressive stem variants are attested: *ca’*^{T}/*cá·y*^{H}/*cá·n*^{N}. Compare Story 1966:4.222; in the chart on p. 67, types 1a and 3a are invariable according to the criteria proposed here. The datum in row 3a column F seems to be incorrect for conservative speakers, for whom such stems are always low-toned.

[4] These irregularities can plausibly be attributed to the fact that these stems originally ended with sonorants, probably *w* in the case of the first two stems, and perhaps *ÿ* in the case of the second two.

The UMLAUTED ROOT is the root variant that occurs before the UMLAUTING SUFFIXES. Virtually all open roots, variable and invariable alike, undergo umlaut; the only exceptions are the two CV*· roots mentioned above and the sole attested invariable root of the shape CV'. The umlauted root is characterized essentially by the substitution of ***e*** for the stem vowels *a* and ***u***; for details see 5.1.3.(13). The following statements characterize where umlaut occurs:

(9) The following suffixes require umlaut:

(a) all root suffixes except the stigmatic suffixes (·, ', '), *-ÿ*, and *-i'*.

(b) the occasional suffix -ʒ̆ without preceding *-ÿ* (i.e. in the Atelic Habitual).

(10) Neither umlaut nor stigmatization, however, occurs before the combination of two order -2 suffixes, namely *-gʷ-d* and *-x̣ʷ-x'*; instead, the stem vowel is reduced.

Invariant stems, which act like invariable roots but are to be distinguished from them on formal grounds, occur in a special type of theme. For discussion of these, see 7.1.1.4.

5.1.3. Stem variation

Stem variation for closed and open variable roots is comparable, but not completely congruent. Open roots have more stem variants than closed roots. In particular, open roots have distinct variants for the n-stem, for the ÿ-stem, and for

X-stems; these all correspond to the reduced stem of closed roots. Furthermore, open roots have distinct forms for the ‘-stem and the ’-stem, whereas closed roots have only the ‘-stem. The ’-stem occurs only in a type of Imperfective (the ’-Imperfective) that is peculiar to open stems; see further 6.1. Stem variation is summarized in Figure 26, where *-X* represents a obstruent or syllabic suffix, and *v̈* represents an umlauted vowel.

These stem variants may be generated by applying the following rules to the combination of root plus root suffix:

> (11) The stigmatic suffixes (·, ‘, ’) are added to an open roots; in closed variable roots, however, the lengthened and fading stems are formed by infixing the stigmatic suffix (· and ‘--’ does not occur) according to the rules given in 5.1.1.(1)-(3).
>
> (12) No stigma is added to a closed root before an umlauting suffix or *-ÿ*.
>
> (13) The vowel of an open root is umlauted before an umlauting suffix (namely *-n*, an obstruental root suffix, *-x̣a‘*, or the occasional suffix *-ʒ̆* where this immediately follows the root). The following changes occur:
>
> > *Ca* > *Ce*;
> >
> > *Cu* > $C^w e$;
> >
> > *Ce* and *Ci* do not change.[5]

---

[5] The ablauted root corresponding to *Cu* begins with the rounded rounded counterpart of *C* if such exists, otherwise with *C*. In autosegmental terms, we can say that the rounding from ***u*** is associated with the onset where such an association is permitted by the phonological system.

Root type:	CLOSED			OPEN	
	CVC°*	CVC'*	CVC°*'	CV*·	CV*ʻ
1. X-stem:	CV́C°-X	CV́C'-X	CV́C°-X		
a. with double obstruent:				CV́-X-X	
b. elsewhere:				Cv́·-X Cv́ʻ-X	
2. n-stem:	CV́C°	CV́C'	CV́C°	Cv́·n[6]	
3. ÿ-stem:	CV́C°	CV́C'	CV́C°		
a. before occasional -ʒ̆:				CV́·ÿ-	
b. unsuffixed:				CV́·	
4. ·-stem:	CV́·C°	CV́·C' CV́ʻC°		CV́·	
5. ʻ-stem:	CVʻC°	CV́ʻC' CV́ʻC°			
a. outside the Imperative:				CVʻ	
b. in the Imperative:				CV́	
6. '-stem:					
a. unsuffixed:				CV́	
b. before decessive -iʻn:				CV́'-	
c. before other -iʻ suffixes:				CVʻ-	
d. before auxiliary or -G:				CV́·(-)	

Figure 26. Stem variation for variable roots

---

[6] Two CV*ʻ roots have progressive/positional stems of the shape *Cv̀ʻn* instead: ni*ʻ (progressive/positional stem *niʻn*)ʻbecome' and ÿa*ʻ (progressive/positional stem *ÿeʻn* ʻresemble'.

(14) Before an umlauting suffix other than *-n* or before *-(ÿ)án*, a stigma is added to an open root: · for *CV**· roots and ‘ for *CV**‘ roots.

(15) Before *-n* or *-ÿ*, the stigma · is added to an open root (with two lexicalized exceptions for *-n*).

(16) If two obstruental root suffixes are added to the root, neither umlaut nor addition of a stigma occurs.

(17) The suffixes *-n* and *-ÿ* are deleted after closed roots, and *-ÿ* is also deleted after an open root except before the occasional suffix -ʒ̆.

(18) The ÿ-stem of open roots loses its stigma before the attributive suffix *-i*; in Northern Tlingit, this applies to the stem of the Telic Perfective but not to that of the ÿ-Stative Imperfective.

(19) The ‘-stem of open roots loses its stigma in Imperative verb forms.

(20) The ’-stem of open roots has four allomorphs:

(a) the underlying allomorph with stigma ’ occurs only before the decessive suffix *-i‘n*;

(b) the stigma ’ is replaced by ‘ before the subordinative suffix *-i‘* and the allomorph *-i‘*ɢ of the optative suffix *-i‘*ɢ ~ -ɢ;

(c) the stigma ’ is replaced by · before the auxiliary and the allomorph -ɢ of the suffix *-i‘*ɢ ~ -ɢ;

(d) elsewhere, the stigma ’ is deleted.

Figure 26 shows the historically non-proclitic stem variants. From these we can predict the historically proclitic stem variants found in attributive verb forms and before the auxiliary. The rules for these variants differ dialectally much more than the basic stem variation rules given as (11)-(20). In Northern Tlingit, what happens is essentially that unless the stem is protected by a following obstruental or syllabic suffix, reduction occurs--that is, the stigma of the closed stem is deleted and the stigma · of the open stem is replaced by ‘--and high tone does not develop in Northern Tlingit. The attributive/proclitic stem variants for Northern Tlingit can be predicted by the following ordered rules, which are to be applied after the rules relating to the attributive suffix *-i* given above as 4.2.5.(4)-(6):

(21) The attributive suffix *-i* replaces the decessive suffix *-i‘n* in Attributive Decessive forms.

(22) In attributive forms, the suffix *-i* is added to verb forms with the I-component of the classifier: the Realis Assertive Perfective and Potential modes, and the Realis Assertive Stative and Extensional Imperfectives.

(23) If the stem is formed from an invariable root, the stigma does not change.[7]

---

[7] Variable ÿ-Stative Imperfectives of Stative themes with otherwise invariable stems formed from open roots plus the suffix -ÿ (e.g. *O-∅-k’e·*(g-stat) ‘O is good’; see 7.1.1.1) behave differently depending on the dialect. In Northern Tlingit, they are treated like forms of invariable roots, and do not lose the stigma (yielding attributive forms like *ÿak’é·ÿi N* ‘good N’); in Southern Tlingit, however, they are treated like other telic stems and lose the stigma (yielding *ÿak’eÿi N* ‘good N’). Note that whereas reduction does not apply to stems formed from invariable roots, it DOES apply to invariant stems (see 7.1.2.4).

(24) If the stem is composed of a root followed by an obstruental or syllabic suffix, or of a stem followed by an obstruental suffix (i.e. in Telic Habitual forms), the stigma does not change.[8]

(25) If the stem is closed, or if the stem is open and followed by the attributive suffix *-i*, the stigma is deleted.

(26) If the stem is open, the stigma · is replaced by ' in the attributive verb form without *-i*.

(27) If the stem of the attributive/proclitic verb form has no stigma, high tone is not assigned in Northern Tlingit.

In Southern Tlingit, rules (24)-(25) are replaced by (24')-(25'); rule (27), of course, does not apply.

(24') If the stem consists of a root plus an obstruental or syllabic suffix, or the progressive suffix *-n*, the stigma does not change.

(25') If the stem of the attributive/proclitic verb form is closed, the stigma · is deleted.

Stem variation in closed and open variable roots will be illustrated in Figure 27, using forms of the Motion themes *O-S-∅-tan**'S handles wooden O', *O-S-∅-ti**' 'S handles unclassified O', *S-ł-ʔad** 'plural S lie', and *S-∅-da**·'(body of) water lies, flows'. The '-stem will be illustrated with the Imperfective of the theme *ɢax̣-S-s-ti**' (na: '-Process.). The numbering in this figure matches that of Figure 26.

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[8] There are isolated and lexicalized cases where reduced and toneless variants coexist alongside the regular unreduced forms. An example is *ʔaqé·s'* 'she is sewing it', *ʔaqes' ʔád* or *ʔaqé·s' ʔad* 'what she is sewing'.

Figure 27. Illustration of stem variation

1a. *ke‘#ʔatánǯ* (Attr. *-tanǯi*)   *ke‘#ʔati‘ǯ* (Attr. *-ti‘ǯ*)

‘s/he keeps picking it up’ (A-ǯ Imperfective)

ke‘#dé·ǯ (Attr. *-dé·ǯ*)

‘it keeps flowing up’

(A-ǯ Imperfective)

1b. *ʔáx̣ nałiʔádg̣* (Attr. *-ʔadg̣i*)   *ʔáx̣ kanłidág̣ʷd* (Attr. *-dag̣ʷdi*)

‘(objects) lie here and there’ ‘(water) lies here and there’

(Distributed-Positional Imperfective)

2. *ÿa‘#ʔanatán* (Attr. *-tan*)   *ÿa‘#ʔanati·n* (Attr. *-tin*)[9]

‘s/he is carrying it along’ (Progressive Imperfective)

3a. *ke‘#ʔu‘tánǯ* (Attr. *-tanǯi*)   *ke‘#ʔu‘ti·ÿǯ* (Attr. *-ti·ÿǯi*)

‘s/he picks it up (every time)’ (Telic Habitual)

3b. *ke‘#ʔa‘watán* (Attr. *-tani*)   *ke‘#ʔa‘wati·* (Attr. *-tiÿi*)

‘s/he picked it up’ (Telic Perfective)

4. *ʔagʷ*ɢa*tá·n* (Attr. *-tan*)   *ʔagʷ*ɢa*ti·* (Attr. *-ti‘*)

‘s/he will take/carry it’ (Future)

5a. *ƛé·ł ʔagʷ*ɢa*ta‘n* (Attr. *-tan*)[10]   *ƛé·ł ʔagʷ*ɢa*ti‘* (Attr. *-ti‘*)

‘s/he will not take/carry it’ (Future)

5b. *ke‘#ta‘n*   *ke‘#ti*

‘pick it up!’ (Imperative)

---

[9] Tongass Tlingit *-ti·n*, in contrast with the attributive form of the Positional Imperfective stem, which is *-tin*.

[10] Tongass Tlingit attributive form *-ta‘n*.

6a. *has*-Gaẋ-*saṯi̱* (Attr. -*ṯi̱*)

‘they are crying’ (Assert.)

6b. *has*-Gaẋ-*saṯi̱ˀyi·n* (Attr. -*ṯi̱ˀyi*)

‘they were crying’ (Decess.)

6c. *has*-Gaẋ-*sati̱ˀyi·*

‘that they are crying’ (Part.)

6d. *guˀa·ɬ has*-Gaẋ-*saṯi̱·*G

‘I hope they are crying’ (Opt.)

5.2. Morphophonemic rules for prefix combinations

The following morphophonemic rules operating on prefix strings are listed for reference.[11] The rules will not be illustrated here; the results of their application to prefix strings may be seen in Figures 28-36, which make reference to the rules by which the results are obtained.

Formal elegance is not the chief desideratum in the present statement of the rules, which is meant rather to be as physically compact and intelligible as possible. Spreading of rounding and reassociation of prefixal low tone (the latter operative in the Henya dialect only) are general rules amenable to autosegmental treatment; these were discussed in 2.1.3-4 and will not be recapitulated here. I will state the rules somewhat informally, without using full feature notation.

The first five rules deal with the most important cases of allomorphy. Rules (1)-(3) are essentially matrix operations on the classifiers, which substitute the values for one row or column with those of another. Rules (4)-(5) specify where the vocalic prefixes *i·-*, *u-*, *u·-*, and *ŭ-* have zero allomorphs.

(1) **D-assimilation:** With the ∅-series, the D-component is deleted following the agent prefix *du-* 'indefinite human' (which otherwise requires the D-component).

(2) **A-deletion:** The [-D,-I] forms of the non-∅-series (*ła-*, *sa-*, *ša-*) are replaced by allomorphs without *a* (*ł-*, *s-*, *š-*) immediately following the order

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[11] Compare Story 1966:7.2.

+4 prefixes *ÿu-*, *na-*, and *u-* (as well as the order +4 prefix *ɢa-* when this is word-initial), the order +3 prefix *daɢa-*, and the order +8 prefix *ʔa-*.

(3) **Affricate series rule:** The s-series is replaced by the ł-series if the stem contains an obstruent member of one of the affricate series.

(4) **2SG-deletion:** *i·* > Ø / in the Imperative with -D classifier.

(5) **U-deletion:**

(5a) *u-*, *u·-*, *ŭ-* > Ø / *ÿu-*, *tu·-*, *i·-*, *ÿi-*, *du-*,

with the optional exception of *u-* before *du-* in the absence of an aspect/mode prefix (*ÿu-*, *ɢa-*, *na-*, *ga-*).

(5b) *u-*, *u·-* > Ø / in the Future.

(5c) *u·-*, *ŭ-* > Ø / *u-*.

(5d) *u·-* > Ø / *ga-*.

((5) bleeds (10a); (5b) bleeds (5c); (5c) feeds (7a).)

The remaining rules are the morphophonemic rules proper. The results of the application of these rules to prefix strings are given in Appendix 5B.

(6) **Verb-initial epenthesis:** Ø > *ʔi-* / #(#)__*C-*,

where *C-* is a +D, -I affricate-series classifier.

(7) **Contraction of *ga-*, *ka-*, and *ɢa-*:**

(7a) *ga-ŭ-* > *gu-* and

ka-ŭ- > *ku-*

(7b) *ɢa-x̣a-* > *qa-*

(7c) *ɢa-* > *qa-* / *tu·-* (optionally in Interior Tlingit)

(7d) *ɢa-ɢa-* > *ɢa‘ɢa* and

ɢa-qa- > *qa‘qa*

(7e) *gu-* > *ku-* / *qa-* in the Future.

where *gu-* is output from rule (7a) and *qa-* from (7b).[12]

((7) feeds (8a) and (11); (7a) feeds (7d); (7c) feeds (7d), (7e), and (9a); (7a) and (7e) feed (15) and (15').)

(8) **Regressive vowel unrounding:** *Cu-* > *Ci-* / *i·-*, *ÿi·-*,

where *Cu-* is a prefix of order +5 or +6, namely *tu-*, *ƛu-*, *šu-*, or *qu-*. (Optional for some speakers.)

((8) counterbleeds (10a) and (10b).)

(9) **Contraction of *ÿa-* and *ÿu-*:**

(9a) *Ca-ÿa-* > *Ca‘*,

where *Ca-* is a prefix of order +2, +3, +4, +5a, or +5b, or a combination of such prefixes, i.e. {*ÿa-*, *ka-*, *ga-*, *na-*, *ɢa-*, *daɢa-*, *x̣a-*, *qa-*}.

(9b) *Cu-ÿa-* > *Cu‘*

where *Cu-* is the result of rule (7a), i.e. {*gu-*, *ku-*}.

(9c) *ÿu-i·-* > *ÿi-*

(9d) *ÿu-ÿa-* > *‘wa* / *CV-* and

ÿi-ÿa- > *‘ÿa* / *CV-*.

---

[12] I have seen *guqa-* instead of *kuqa-*, which would imply that this rule is optional or does not apply for someone, but I do not remember where I saw it.

(9e) *ÿu-ÿa-* > *ÿu‘* and

ÿu-i·-ÿa- > *ÿi‘*, both / #__, in the Atelic Perfective.[13]

(9f) *ÿu-ÿa-* > *ˀuÿa* and

ÿu-i·-ÿa- > *ˀiÿa*, both / #__, in the Telic Perfective.

(9g) *ÿi·-ÿa-*, *ÿu-ÿi·-(ÿa-)* > *ÿi*ÿ

(9h) *ÿi·-* > *ÿi*ÿ / __*Ci-*, where *Ci-* is a +I classifier.

((9a) bleeds (14b); (9c) feeds (9d), (9e), and (9f), and bleeds (10a); (9d) feeds (9e) and (9f); (9e) and (9f) bleed (10a) and (10b) and feed (14'c); (9g) and (9h) bleed (11).)

(10) **Vowel contraction:**

(10a) *CV-i·-* > *Ci·*,

where *CV-* is a prefix of order +4, i.e. {*na-*, *ga-*, *ɢa-*}.

(10b) *CV-i·-* > *Ci‘* elsewhere.

(10c) *Ca-u·-* > *Cu·*,

where *Ca-* is a prefix of order +4d, +4e, or +5a, i.e. {*ga-*, *ka-*}.

(10d) *Ca-u-* > *Cu‘*,

where *Ca-* is a prefix of order +4, +5a, or +5b, i.e. {*ÿa-*, *ka-*, *na-*, *ga-*, *ɢa-*};

CV-u- > *CV"* elsewhere.

---

[13] Compare Story 1966:6.212, which is wrong on two counts. N-S do not consistently distinguish the length contrast for prefixal *i* and *u*, so Story 1966 does not distinguish *wu‘-* from *wu-*. The 2SG form is simply erroneous; it should be *ÿi‘-* instead of *ˀiÿa-*.

((10a) and (10c) feed (11); (10d) bleeds (12a).)

(11) **U-absorption:**

(11a) *u-(na-)C > (na-)Cʷ*,

where *C* is roundable, i.e. {*x̣*, ɢ, *q*}. (In Interior Tlingit applicable only in the combinations *u*-ɢ and *u-q*; in other dialects optional or inapplicable with intervening *na-*.)

(11b) *ÿu-x̣a > x̣ʷa*. (Exceptions are found in songs.)

((11) feeds (13), (15); (11b) also bleeds (15).)

(12) **Rounding assimilation:**

(12a) *ÿ > w / _u*;

(12b) *ÿ > w / u_*.

(Optional or inapplicable for y-speakers after prefixes of orders +5, +6.)

((12) feeds (13).)

(13) **Elision I (Northern Tlingit):** *CV > C* / σ_1(#)_$\sigma_2\sigma_3$,

where σ_1 is open and σ_3 is the stem syllable, in the following cases:

ɢ*(ʷ)a > x̣(ʷ)*

ÿi > ÿ'

wu > w'

((13) counterbleeds (14) and bleeds (19b).[14])

---

[14] The splitting of the Elision rule into two parts requires some comment, since it is based on a rare but consistently attested phenomenon: the combination *ÿa-u·-*, which contracts to *ÿu·-* by (10c), becomes *wu·-* by (12), and shortens to *wu-* in a

(13’) **Elision I (Southern Tlingit):**

(13’a) = (13)

(13’b) *ʔuwa-* > *wa* and

ʔiÿa- > *ÿa* / #__ (these strings occur as input from (8c).)

(13’c) *Ci-* > *C-* / V(#)__, where *Ci-* is a +I classifier.

(13’d) *Cu-ÿa-* > *Cwa*

where *Cu-* is a prefix of order +2, i.e. {*tu-*, *du-*}.

(13’e) *Cu-* > *C-* except (a) / #__ and (b) __C_i-,

where *Cu-* is a prefix of order +2, and C_i- is an allomorph of a *Ci-* classifier (output from (13’c)).

((13’e) bleeds (18’).)

(14) **Shortening:** *V·* > *V* / __*σ*, where *σ* is not the stem syllable.

(15) **Elision II (Northern Tlingit):** *CV(ʻ)* > *C* / σ_1((#)#)__$\sigma_2\sigma_3$,

where σ_1 is open, σ_2 has an obstruent onset, and σ_3 is the stem syllable, in the following cases:

na > *nʻ*

x̣(ʷ)a > *x̣(ʷ)*

ga > *g*

---

pre-pre-stem syllable by (14), does not contract to *wʻ-* like the perfective prefix *ÿu-* > *wu-* according to (13); compare *š-ÿá’ ʔa-ÿa-u·-di-né·* > *š-ÿá’ ʔawudiné·* ‘he/she is self-respecting’ with *ʔa-ÿu-di-gaʻn* > *ʔawdigaʻn* ‘the sun is shining’. This fact is accounted for by ordering Elision I (13) before Shortening (14). Contrasting with this is the fact that *ka-* or *ga-* plus *u·-*, which similarly yield *ku·-* and *gu·-* by (10c), do contract to *gʷ-* in the same environment; compare *ʔax̣-daʻ yuʻ#ǯi-ka-u·-łi-ʔád-g* > *ʔax̣-daʻ yuʻ#ǯigʷłiʔádg* ‘he/she is attending/serving me’ with the above.

gu(‘) > g^w

ka > *g*

ku > g^w

(15’) **Elision II (Southern Tlingit)** $CV(‘) > C \,/\, \sigma_1((\#)\#)\_\sigma_2\sigma_3$,

where σ_1 is open, σ_2 has an obstruent onset, and σ_3 is the stem syllable, in the following cases:

na > *n‘*

x̣$(^w)$*a* > *x̣*$(^w)$

ga > *g*

gu(‘) > g^w

ka > *g* (does not apply in Tongass Tlingit)

ku > g^w (does not apply in Tongass Tlingit)

ɢ*i* > ɢ

(16) **Elision III (Southern Tlingit):** $CV > C \,/\, \_\sigma$,

where *V* is a high vowel (with reassociation of rounding in the case of *u*), and σ is a prestem syllable, in the following cases:

ǯi > *ǯ*

łu > *ł*

šu > *š*

x̣u > $x̣^w$

(17) **Lowering of *e*:** $e > a \,/\, \_\sigma$,

where σ is a stem or prestem syllable.

(18) **Future prefix contraction (Northern Tlingit):**

guɢa > (g)ɢʷa,

kuqa > (g)qʷa, and

gaɢi(·) > (g)ɢi(·), in the Future.

This is optional in Northern Tlingit.

(18') **Future prefix contraction (Southern Tlingit):**

guɢa > ɢʷa,

kuqa > qʷa, and

gaɢi(·) > ɢi(·), in the Future.

gax̣ > kax̣, in the Future, in Tongass Tlingit.

(19) **Prestem syllable contraction:**

(19a) *ÿi- > ÿ‘ / Ca- __σ*,

where *ÿi-* is the 2PL subject pronominal prefix.

(19b) *Ca- > C- / ɢa-__*,

where *Ca-* is a +I, -D obstruent-series classifier.

(20) **Onset filling:** Zero onset is filled with ʔ.

(21) **Post-sonorant stigma deletion (outside of Tongass Tlingit):**

‘ > ∅ / C __,

where *C* is a sonorant.

5.3. Prefix combinations

The following charts give the forms of prefix combinations in Northern Tlingit only. The Southern Tlingit forms are sufficiently different and exhibit enough dialect variation that adding these to the charts would render them hard to read. These charts give the surface forms resulting from strings of the prefixes of orders +1, +2, and +4a-d, with or without a preceding *CV-* prefix of order +4e, +5, or +6. The forms with *CV-* prefix differ mainly in that rules 5.2.(10), 5.2.(13/13'), and 5.2.(15/15') frequently apply in conjunction with these prefixes. Rules 5.2.(13/13') and 5.2.(15/15') apply in sandhi as well as within the word: they apply across word boundary if the preceding syllable is open and there is no pause. Forms where the first syllable undergoes contraction in this environment are indicated with an asterisk following the form.

Underneath each form are cited the rules of section 5.2 that apply in its derivation--except for those rules that are omitted for reasons detailed below. First, the earlier rules 5.2.(1)-(5)--which either perform classifier shifts or delete *i·-*, *u-*, *u·-*, or *ŭ-*--are not taken into account here; they must be applied to the underlying string in order to obtain the intermediate string that generates the correct surface form given in these charts, as seen in the following examples:

Underlying string: *ÿu-du-di-ná·* > (rule (1))

Intermediate string: *ÿu-du-ÿa-ná·*

Surface string: *wuduwaná·* 'one drank it'

Underlying string: *ƛ́é·ł ʔa-ka-u-ša-xi'd* > (rule (2))

Intermediate string: *ƛ́é·ł ʔa-ka-u-š-xi'd*

Surface string: *ƛ́é·ł ʔaku'šxi'd* 'he/she is not writing it'

Spreading and reassociation of rounding, of which rule 5.2.(12) is for speakers that retain *ÿ* as a phoneme but a special case (see 2.1.2), will not be noted. We should mention, however, that for many *y*-speakers, rule 5.2.(12) is obligatory only following prefixes of orders +2 and +4.

Each of the following charts deals with a specific combination of +4 aspectual prefixes: *∅-ÿu-*, *ɢa-*, *na-*, *ga-*, *ɢa-ɢa-*, *na-ɢa-*, and *ga-ɢa-*. A special chart is given for the Future paradigm, which generally resembles *ga-ɢa-* but differs in certain significant details. The rows specify the +3 subject pronominals with or without the +4c prefixes (*u-*, *u·-*, or *ŭ-*). The +4c prefixes are treated in combination with the subject pronominals for the sake of economy: in accordance with rule 5.2.(5), the +4c prefixes zero out before all subject pronominals except *∅-* and 1SG *x̧a-*; furthermore, *ŭ-* occurs only with *∅-*.The abbreviation CV_u‘ refers to the result of rule 5.2.(10d), which is therefore to be understood as applying where this abbreviation occurs; V_u is either *u* or identical with the prefix vowel. Similarly, rules (10c) and (7d) will be understood as applying in conjunction with *u·-* (which only follows *ÿa-*) and *ŭ-* (which only follows *ka-* or *ga-*).

The column refers to the form of the classifier. In most cases the surface form of the prefix string is the same with a *C-* classifier (*ł-*, *s-*, *š-*) as with *∅-*,and with a *Ca-* classifier (*ła-*, *sa-*, *ša-*, *da-*) as with a *Ci-* classifier (*łi-*, *si-*, *ši-*, *di-*, *ƛi-*, *ʒi-*, *ǯi-*). The *ÿa-* classifier forms are subject to contraction and thus given separately.

Without *CV-* prefix

CL:	∅-	C-	Ca-	Ci-	ÿa-
x̣a-		*x̣a(C)-*	*x̣aCV-**		*x̣aʻ-* (9a)
tu·-		*tu·(C)-*	*tuCV-* (14)		*tuwa-* (14)
i·-		*ˀi·(C)-* (20)	*ˀiCV-* (14), (20)		*ˀiÿa-* (14), (20)
ÿi-		*ÿi(C)-*	*ÿiCa-** (14)	*ÿiÿCi-* (9h)	*ÿiÿ-* (9g)
du-		*du(C)-*	--	*duCi-*	*duwa-*
∅-	*∅-*	*ˀiC-* (4)	*CV-*		*ÿa-*
u-x̣a-		*x̣ʷa(C)-* ~ *ˀux̣a-* (11a)	*x̣ʷaCV-** ~ *ˀux̣CV-* (11a)		*x̣ʷaʻ-* ~ *ˀux̣aʻ-* (9a), (11a)
u-∅-		*ˀu(C)-* (20)	--	*ˀuCi-* (20)	*ˀuwa-* (20)
u-du-		*ˀudu(C)-* ~ *du(C)-* (20)	--		--

Figure 28. Aspect prefix *∅*

With *CV-* prefix

<table>
<tr><th>CL:</th><th>Ø-</th><th>C-</th><th>Ca-</th><th>Ci-</th><th>ÿa-</th></tr>
<tr><td>x̣a-</td><td colspan="2">CVx̣a(C)-</td><td colspan="2">CVx̣CV-
(15)</td><td>CVx̣aʻ-
(9a)</td></tr>
<tr><td>tu·-</td><td colspan="2">CVtu·(C)-</td><td colspan="2">CVtuCV-
(14)</td><td>CVtuwa-
(14)</td></tr>
<tr><td>i·-</td><td colspan="2">Ciʻ(C)-
(10b)</td><td colspan="2">Ciʻ·CV-
(10b)</td><td>Ciÿa-
(10b)</td></tr>
<tr><td>ÿi-</td><td>CVÿ-
(19a)</td><td>CVÿi(C)-</td><td>CVÿCa-
(14), (13)</td><td>CVÿiÿCi-
(9h)</td><td>CVÿiÿ-
(9g)</td></tr>
<tr><td>du-</td><td colspan="2">CVdu(C)-</td><td>--</td><td>CVduCi-</td><td>CVduwa-</td></tr>
<tr><td>∅-</td><td colspan="2">CV(C)-</td><td colspan="2">CVCV-</td><td>CVÿa-[15]</td></tr>
<tr><td>u-x̣a-</td><td colspan="2">CV_uʻx̣a(C)-</td><td colspan="2">CV_uʻx̣CV-
(15)</td><td>CV_uʻx̣aʻ-</td></tr>
<tr><td>u-∅-</td><td colspan="2">CV_uʻ(C)-</td><td>--</td><td>CV_uʻCi-</td><td>CV_uÿa-</td></tr>
<tr><td>u-du-</td><td colspan="2">CV_uʻdu(C)- ~
CVdu(C)-</td><td colspan="2">--</td><td>--</td></tr>
<tr><td>u·-x̣a-</td><td colspan="2">Cux̣a(C)-
(14)</td><td colspan="2">Cux̣CV-
(14), (15)</td><td>Cux̣aʻ-
(9a), (14)</td></tr>
<tr><td>u·-∅-</td><td colspan="2">Cu·(C)-</td><td colspan="2">CuCV-
(14)</td><td>Cuwa-
(14)</td></tr>
<tr><td>ŭ-∅-</td><td colspan="2">Cu(C)-</td><td colspan="2">CuCV-</td><td>Cuʻ-
(9b)</td></tr>
</table>

---

[15] Except with *ka-*, where *kaÿa-* > *kaʻ-* by (9a).

Without *CV-* prefix

CL:	∅-	C-	Ca-	Ci-	ÿa-
x̣a-		*x̣ʷa(C)-* (11b)	*x̣ʷaCV-** (11b)		*x̣ʷa‘-* (9a), (11b)
tu·-		*wutu·(C)-**	*wutuCV-** (14)		*wutuwa-** (14)
i·-		*ÿi(C)-* (9c)	*ÿiCV-** (9c)		*ÿi‘- ~ ʔiÿa-* (9e) ~ (9f)
ÿi-		*ÿiÿ(C)-* (9g)	*ÿiÿCV-* (9g)		*ÿiÿ-* (9g)
du-		*wudu(C)-**	--	*wuduCi-**	*wuduwa-**
∅-		*wu(C)-*	--	*wuCi-**	*wu‘- ~ ʔuwa-* (9e) ~ (9f)

Figure 29: Aspect prefix *ÿu-* (Perfective)

With *CV*- prefix

CL:	ø-	C-	Ca-	Ci-	ÿa-
x̣a-		*CVx̣^{w}a(C)-* (11b)		*CVx̣^{w}CV-* (11b), (15)	*CVx̣^{w}a‘-* (9a), (11b)
tu·-		*CVwtu·(C)-* (13)		*CVwtuCV-* (14), (13)	*CVwtuwa-* (14), (13)
i·-		*CVÿi(C)-* (9c)		*CVÿCV-* (9c), (15)	*Ciÿa-* (9c), (9d)
ÿi-		*CVÿiÿ(C)-* (9g)		*CVÿiÿCV-* (9g)	*CVÿiÿ-* (9g)
du-		*CVwdu(C)-* (13)	--	*CVwduCi-* (13)	*CVwduwa-* (13)
∅-		*CVwu(C)-*	--	*CVwCV-* (13)	*CV‘wa-* (9d)

Without *CV-* prefix

CL:	∅-	C-	Ca-	Ci-	ÿa-
x̣a-		*qa(C)-* (7b)		*qaCV-* (7b)	*qaʿ-* (7b), (9a)
tu·-		*ɢatu·(C)-**		*ɢatuCV-** (14)	*ɢatuwa-** (14)
i·-		*ɢi·(C)-* (10a)		*ɢiÿa-* (10a), (14)	*ɢiÿa-* (10a), (14)
ÿi-	*ɢaÿ-* (19a)	*ɢaÿi(C)-*		*ɢaÿCV-* (10a), (15)	*ɢaÿiÿ-* (9g)
du-		*ɢadu(C)-**	--	*ɢaduCi-**	*ɢaduwa-**
∅-		*ɢa(C)-*	--	*ɢaCV-**	*ɢaʿ-* (9a)
u-x̣a-		*qʷa(C)-* (7b), (11a)		*qʷaCV-* (7b), (11a)	*qʷaʿ-* (7b), (9a), (11a)
u-∅-		*ɢʷa(C)-* (11a)		*ɢʷaCV-** (11a)	*ɢʷaʿ-* (9a), (11a)

Figure 30. Aspect prefix *ɢa-*

With *CV*- prefix

CL:	Ø-	C-	Ca-	Ci-	ÿa-
x̣a-		*CVqa(C)-* (7b)		*CVqaCV-* (7b)	*CVqa‘-* (7b), (9a)
tu·-		*CVx̣tu·(C)-* (15)		*CVx̣tuCV-* (14), (15)	*CVx̣tuwa-* (14), (15)
i·-		*CVɢi·(C)-* (10a)		*CVɢiCV-* (10a), (14)	*CVɢiÿa-* (10a), (14)
ÿi-		*CVx̣ÿi(C)-* (15)		*CVx̣ÿiCV-* (14), (15)	*CVx̣ÿiÿ-* (9g), (15)
du-		*CVx̣du(C)-* (15)	--	*CVx̣duCi-* (15)	*CVx̣duwa-* (15)
Ø-		*CVɢa(C)-*		*CVx̣CV-* (15)	*CVɢa‘-* (9a)
u-x̣a-		*CV$_u$‘qa(C)-* (7b)		*CV$_u$‘qaCV-* (7b)	*CV$_u$‘qa‘-* (7b), (9a)
u-Ø-		*CV$_u$‘ɢa(C)-*		*CV$_u$‘x̣CV-* (15)	*CV$_u$‘ɢa‘-* (9a)
u·-x̣a-		*Cuqa(C)-* (7b), (14)		*CuqaCV-* (7b), (14)	*Cuqa‘-* (7b), (9a), (14)
u·-Ø-		*Cuɢa(C)-* (14)		*Cux̣CV-* (13), (14)	*Cuɢa‘-* (9a), (14)

Without *CV-* prefix

CL:	ø-	C-	Ca-	Ci-	ÿa-
x̣a-		*nax̣a(C)-**		*nax̣CV-** (15)	*nax̣aʻ-** (9a)
tu·-		*natu·(C)-**		*natuCV-** (14)	*natuwa-** (14)
i·-		*ni·(C)-* (10a)		*niCV-* (10a), (14)	*niÿa-* (10a), (14)
ÿi-	*naÿ-* (19a)	*naÿi(C)-*		*naÿCV-* (10a), (15)	*naÿiʻÿ-* (9g)
du-		*nadu(C)-**	--	*naduCi-**	*naduwa-**
∅-		*na(C)-*	--	*naCi-**	*naʻ-* (9a)
u-x̣a-		*ʔunx̣a(C)-* ~ *nax̣ʷa(C)-** (15), (20) ~ (11a)	*ʔunax̣CV-* ~ *nax̣ʷCV-* (15), (20) (11a), (15)		*ʔunx̣aʻ-* ~ *nax̣ʷaʻ-** (9a), (15), (20) ~ (9a), (11a)
u-∅-		*ʔuna(C)-* (20)	--	*ʔunCi-* (15), (20)	*ʔunaʻ-* (9a), (20)

Figure 31. Aspect prefix *na-*

With *CV-* prefix

CL:	ø-	C-	Ca-	Ci-	ÿa-
x̣a-		*CVnx̣a(C)-* (15)		*CVnax̣CV-* (15)	*CVnx̣a‘-* (9a), (15)
tu·-		*CVntu·(C)-* (15)		*CVntuCV-* (14), (15)	*CVntuwa-* (14), (15)
i·-		*CVni·(C)-* (10a)		*CVniCV-* (10a), (14)	*CVniÿa-* (10a), (14)
ÿi-	*CVnaÿ-* (19a)	*CVnaÿi(C)-*		*CVnaÿCV-* (10a), (15)	*CVnaÿi‘ÿ-* (9g)
du-		*CVndu(C)-* (15)	--	*CVnduCi-* (15)	*CVnduwa-* (15)
Ø-		*CVna(C)-*	--	*CVnCi-* (15)	*CVna‘-* (9a)
u-x̣a-[16]		*CV$_u$‘nx̣a(C)-* (15), (20)		*CV$_u$‘nax̣CV-* (15), (20)	*CV$_u$‘nx̣a‘-* (9a), (15), (20)
u-Ø-		*CV$_u$‘na(C)-*	--	*CV$_u$‘nCi-* (15)	*CV$_u$‘na‘-* (9a)
u·-x̣a-		*Cunx̣a(C)-* (14), (15)		*Cunax̣CV-* (14), (15)	*Cunx̣a‘-* (9a), (14), (15)
u·-Ø-, *ŭ-Ø-*		*Cuna(C)-* (14)	--	*CunCi-* (14), (15)	*Cuna‘-* (9a), (14)

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[16] Some speakers allow the following alternate forms for *u-x̣a-*, which cannot however be derived without reordering the rules:
CVnx̣ʷa(C)-, CVnax̣ʷCV-, CVnx̣ʷa‘-.

Without *CV-* prefix

CL:	**ø-**	**C-**	**Ca-**	**Ci-**	**ÿa-**
x̣a-		*gax̣a(C)-**		*gax̣CV-** (15)	*gax̣aʻ-** (9a)
tu·-		*gatu·(C)-**		*gatuCV-** (14)	*gatuwa-** (14)
i·-		*gi·(C)-* (10a)		*giCV-* (10a), (14)	*giÿa-* (10a), (14)
ÿi-	*gaÿ-* (19a)	*gaÿi(C)-*		*gaÿCV-* (10a), (15)	*gaÿiʻÿ-* (9g)
du-		*gadu(C)-**	--	*gaduCi-**	*gaduwa-**
∅-		*ga(C)-*		*gaCV-**	*gaʻ-* (9a)
u-x̣a-		*guʻx̣a(C)-**		*guʻx̣CV-* (15)	*guʻx̣aʻ-** (9a)
u-∅-		*guʻ(C)-*	--	?	?

Figure 32. Aspect prefix *ga-*

With *CV-* prefix

CL:	**ø-**	**C-**	**Ca-**	**Ci-**	**ÿa-**
x̣a-		*CVgx̣a(C)-* (15)		*CVgax̣CV-* (15)	*CVgx̣aʻ-* (9a), (15)
tu·-		*CVgtu·(C)-* (15)		*CVgtuCV-* (14), (15)	*CVgtuwa-* (14), (15)
i·-		*CVgi·(C)-* (10a)		*CVgiCV-* (10a), (14)	*CVgiÿa-* (10a), (14)
ÿi-	*CVgaÿ-* (19a)	*CVgaÿi(C)-*		*CVgaÿCV-* (10a), (15)	*CVgaÿiʻÿ-* (9g)
du-		*CVgdu(C)-* (15)	--	*CVgduCi-* (15)	*CVgduwa-* (15)
∅-		*CVga(C)-*		*CVgCV-* (15)	*CVgaʻ-* (9a)
u-x̣a-		*CVg^{w}x̣a(C)-* (15)		*CVguʻx̣CV-* (15)	*CVg^{w}x̣aʻ-* (9a), (15)
u-∅-		*CVguʻ(C)-*	--	?	?

Without *CV-* prefix

<table>
<tr><th>CL:</th><th>ø-</th><th>C-</th><th>Ca-</th><th>Ci-</th><th>ÿa-</th></tr>
<tr><td><i>x̣a-</i></td><td colspan="2"><i>qa‘qa(C)-</i>
(7b)</td><td colspan="2"><i>qa‘qaCV-</i>
(7b)</td><td><i>qa‘qa‘-</i>
(7b), (9a)</td></tr>
<tr><td><i>tu·-</i></td><td colspan="2"><i>ɢa‘x̣tu·(C)-</i>
(13)</td><td colspan="2"><i>ɢa‘x̣tuCV-</i>
(14), (13)</td><td><i>ɢa‘x̣tuwa-</i>
(14), (13)</td></tr>
<tr><td><i>i·-</i></td><td colspan="2"><i>ɢa‘ɢi·(C)-</i>
(10a)</td><td colspan="2"><i>ɢa‘ɢiCV-</i>
(10a), (14)</td><td><i>ɢa‘ɢiÿa-</i>
(10a), (14)</td></tr>
<tr><td><i>ÿi-</i></td><td colspan="2"><i>ɢa‘x̣ÿi(C)-</i>
(13)</td><td colspan="2"><i>ɢa‘x̣ÿiCV-</i>
(14), (13)</td><td><i>ɢa‘x̣ÿiÿ-</i>
(9g), (13)</td></tr>
<tr><td><i>du-</i></td><td colspan="2"><i>ɢa‘x̣du(C)-</i>
(13)</td><td>--</td><td><i>ɢa‘x̣duCi-</i>
(13)</td><td><i>ɢa‘x̣duwa-</i>
(13)</td></tr>
<tr><td><i>∅-</i></td><td colspan="2"><i>ɢa‘ɢa(C)-</i></td><td colspan="2"><i>ɢa‘x̣CV-</i>
(13)</td><td><i>ɢa‘ɢa‘-</i>
(9a)</td></tr>
<tr><td><i>u-x̣a-</i></td><td colspan="2"><i>qʷa‘qa(C)-</i>
(7b)</td><td colspan="2"><i>qʷa‘qaCV-</i>
(7b)</td><td><i>qʷa‘qa‘-</i>
(7b), (9a)</td></tr>
<tr><td><i>u-∅-</i></td><td colspan="2"><i>ɢʷa‘ɢa-</i></td><td colspan="2"><i>ɢʷa‘x̣CV-</i>
(13)</td><td><i>ɢʷa‘ɢa‘-</i>
(9a)</td></tr>
</table>

Figure 33. Aspect prefix *ɢa-ɢa-*[17]

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[17] Rule (7d) applies in all strings containing *ɢa-ɢa-*.

With *CV-* prefix

CL:	∅-	C-	Ca-	Ci-	ÿa-
x̣a-		*CVqaʻqa(C)-* (7b)		*CVqaʻqaCV-* (7b)	*CVqaʻqaʻ-* (7b), (9a)
tu·-		*CVɢaʻx̣tu·(C)-* (13)		*CVɢaʻx̣tuCV-* (14), (13)	*CVɢaʻx̣tuwa-* (14), (13)
i·-		*CVɢaʻɢi·(C)-* (10a)		*CVɢaʻɢiCV-* (10a), (14)	*CVɢaʻɢiÿa-* (10a), (14)
ÿi-		*CVɢaʻx̣ÿi(C)-* (13)		*CVɢaʻx̣ÿiCV-* (14), (13)	*CVɢaʻx̣ÿiÿ-* (9g), (13)
du-		*CVɢaʻx̣du(C)-* (13)	--	*CVɢaʻx̣duCi-* (13)	*CVɢaʻx̣duwa-* (13)
∅-		*CVɢaʻɢa(C)-*		*CVɢaʻx̣CV-* (13)	*CVɢaʻɢaʻ-* (9a)
u-x̣a-		*CV*$_u$*ʻqaʻqa(C)-* (7b)		*CV*$_u$*ʻqaʻqaCV-* (7b)	*CV*$_u$*ʻqaʻqaʻ-* (7b), (9a)
u-∅-		*CV*$_u$*ʻɢaʻɢa(C)-*		*CV*$_u$*ʻɢaʻx̣CV-* (13)	*CV*$_u$*ʻɢaʻɢaʻ-* (9a)
u·-x̣a-		*Cuqaʻqa(C)-* (7b), (14)		*CuqaʻqaCV-* (7b), (14)	*Cuqaʻqaʻ-* (7b), (9a), (14)
u·-∅-, *ŭ-∅-*		*Cuɢaʻɢa(C)-* (14)		*Cuɢaʻx̣CV-* (13), (14)	*Cuɢaʻɢaʻ-* (9a), (14)

Without *CV-* prefix

CL:	∅-	C-	Ca-	Ci-	ÿa-
x̣a-		*naqa(C)-** (7b)		*naqaCV-** (7b)	*naqaʻ-** (7b), (9a)
tu·-		*nax̣tu·(C)-* (13)		*nax̣tuCV-* (14), (13)	*nax̣tuwa-* (14), (13)
i·-		*naɢi·(C)-** (10a)		*naɢiCV-** (10a), (14)	*naɢiÿa-** (10a), (14)
ÿi-		*nax̣ÿi(C)-* (13)		*nax̣ÿiCV-* (14), (13)	*nax̣ÿiʻÿ-* (9g), (13)
du-		*nax̣du(C)-* (13)	--	*nax̣duCi-* (13)	*nax̣duwa-* (13)
∅-		*naɢa(C)-**		*nax̣CV-* (13)	*naɢaʻ-** (9a)
u-x̣a-		*ʔunqa(C)-*~ *naqʷa(C)-** (7b), (15), (20)~ (7b), (11a)		*ʔunqaCV-*~ *naqʷaCV-** (7b), (15), (20)~ (7b), (11a)	*ʔunqaʻ-*~ *naqʷaʻ*-* (7b), (9a), (15)~ (7b), (9a), (11a)
u-∅-		*ʔunɢa-*~ *naɢʷa(C)-** (15), (20)~ (11a)		*ʔunax̣CV-*~ *nax̣ʷCV-* (13), (20)~ (11a)	*ʔunɢaʻ-*~ *naɢʷaʻ-** (9a), (15), (20)~ (9a), (11a)

Figure 34. Aspect prefix *na-ɢa-*

With *CV*- prefix

CL:	**ø-**	**C-**	**Ca-**	**Ci-**	**ÿa-**
nax̣a-		*CVnqa(C)-* (7b), (15)		*CVnqaCV-* (7b), (15)	*CVnqa‘-* (7b), (9a), (15)
tu·-		*CVnax̣tu·(C)-* (13)		*CVnax̣tuCV-* (14), (13)	*CVnax̣tuwa-* (14), (13)
i·-		*CVnɢi·(C)-* (10a), (15)		*CVnɢiCV-* (10a), (14), (15)	*CVnɢiÿa-* (10a), (14), (15)
ÿi-		*CVnax̣ÿi(C)-* (13)		*CVnax̣ÿiCV-* (14), (13)	*CVnax̣ÿiÿ-* (9g), (13)
du-		*CVnax̣du(C)-* (13)	--	*CVnax̣duCi-* (13)	*CVnax̣duwa-* (13)
ø-		*CVnɢa(C)-* (15)		*CVnax̣CV-* (13)	*CVnɢa‘-* (9a), (15)
u-x̣a-[18]		*CV*$_u$*‘nqa(C)-* (7b), (15)		*CV*$_u$*‘nqaCV-* (7b), (15)	*CV*$_u$*‘nqa‘-* (7b), (9a), (15)
u-ø-		*CV*$_u$*‘nɢa(C)-* (15)		*CV*$_u$*‘nax̣CV-* (13)	*CV*$_u$*‘nɢa‘-* (9a), (15)
u·-x̣a-		*Cunqa(C)-* (7b), (14), (15)		*CunqaCV-* (7b), (14), (15)	*Cunqa‘-* (7b),(9a),(14),(15)
u·-ø-, *ŭ-ø-*		*Cunɢa(C)-* (14), (15)		*Cunax̣CV-* (13), (14)	*Cunɢa‘-* (9a), (14), (15)

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[18] Some speakers allow the following alternate forms for *u-x̣a-* and *u-ø-*,which cannot however be derived without reordering the rules:

CVnq^w*a(C)-*, *CVnq*^{w}*aCV-*, *CVnq*^{w}*a‘-*;
CVnɢ^w*a(C)-*, *CVnax̣*^{w}*CV-*, *CVnɢ*^{w}*a‘-*.

Without *CV-* prefix

CL:	∅-	C-	Ca-	Ci-	ÿa-
x̣a-		*gaqa(C)-** (7b)		*gaqaCV-** (7b)	*gaqa‘-** (7b), (9a)
tu·-		*gax̣tu·(C)-* (13)		*gax̣tuCV-* (14), (13)	*gax̣tuwa-* (14), (13)
i·-		*gaɢi·(C)-** (10a)		*gaɢiCV-** (10a), (14)	*gaɢiÿa-** (10a), (14)
ÿi-		*gax̣ÿi(C)-* (13)		*gax̣ÿiCV-* (14), (13)	*gax̣ÿi‘ÿ-* (9g), (13)
du-		*gax̣du(C)-* (13)	--	*gax̣duCi-* (13)	*gax̣duwa-* (13)
∅-		*gaɢa(C)-**		*gax̣CV-* (13)	*gaɢa‘-** (9a)
u-x̣a-		*gu‘qa(C)-** (7b)		*gu‘qaCV-** (7b)	*gu‘qa‘-** (7b), (9a)
u-∅-		*gu‘ɢa-**		*gu‘x̣CV-* (13)	*gu‘ɢa‘-** (9a)

Figure 35. Aspect prefix *ga-ɢa-*

With *CV-* prefix

CL: ø-	**C-**	**Ca-**	**Ci-**	**ÿa-**
x̣a-	*CVgqa(C)-* (7b), (15)		*CVgqaCV-* (7b), (15)	*CVgqa‘-* (7b), (9a), (15)
tu·-	*CVgax̣tu·(C)-* (13)		*CVgax̣tuCV-* (14), (13)	*CVgax̣tuwa-* (14), (13)
i·-	*CVgɢi·(C)-* (10a), (15)		*CVgɢiCV-* (10a), (14), (15)	*CVgɢiÿa-* (10a), (14), (15)
ÿi-	*CVgax̣ÿi(C)-* (13)		*CVgax̣ÿiCV-* (14), (13)	*CVgax̣ÿi‘ÿ-* (9g), (13)
du-	*CVgax̣du(C)-* (13)	--	*CVgax̣duCi-* (13)	*CVgax̣duwa-* (13)
ø-	*CVgɢa(C)-* (15)		*CVgax̣CV-* (13)	*CVgɢa‘-* (9a), (15)
u-x̣a-	*CVgʷqa(C)-* (7b), (15)		*CVgʷqaCV-* (7b), (15)	*CVgʷqa‘-* (7b), (9a), (15)
u-ø-	*CVgʷɢa(C)-* (15)		*CVgu‘x̣CV-* (13)	*CVgʷɢa‘-* (9a), (15)

Without *CV-* prefix

CL:	**∅-**	**C-**	**Ca-**
x̣a-		*kuqa(C)-*~* *(g)q^{w}a(C)-* (7b), (7e)(, (18))	*kuqaCa-*~* *(g)q^{w}aCa-* (7b), (7e)(, (18))
tu·-		*gax̣tu·(C)-* (13)	*gax̣tuCa-* (14), (13)
i·-		*gaɢi·(C)-*~* *(g)ɢi·(C)-* (10a)(, (18))	*gaɢiCa-*~* *(g)ɢiCa-* (10a), (14)(, (18))
ÿi-		*gax̣ÿi(C)-* (13)	*gax̣ÿiCa-* (14), (13)
du-		*gax̣du(C)-* (13)	--
∅-		*guɢa(C)-*~* *(g)ɢ^{w}a(C)-* ((18))	*gux̣Ca-* (13)

Figure 36. Aspect prefix *ga-ŭ-ɢa-* (Future)

With *CV*- prefix

CL:	**ø-**	**C-**	**Ca-**
x̣a-		*CVgʷqa(C)-* (7b), (15)	*CVgʷqaCa-* (7b), (15)
tu·-		*CVgax̣tu·(C)-* (13)	*CVgax̣tuCa-* (14), (13)
i·-		*CVgɢi·(C)-* (10a), (15)	*CVgɢiCa-* (10a), (14), (15)
ÿi-		*CVgax̣ÿi·(C)-* (13)	*CVgax̣ÿiCa-* (14), (13)
du-		*CVgax̣du(C)-* (13)	--
∅-		*CVgʷɢa(C)-* (15)	*CVgux̣Ca-* (13)

CHAPTER 6

FORMAL PROPERTIES OF THE INFLECTIONAL SCHETIC CATEGORIES

6.1. The simplex modes

Figure 37 details the formal manifestation of each simplex mode. This consists of an inflectional string that obligatorily contains an order -3 suffix and may in addition contain an order -4 suffix, the I-component of the classifier (indicated as +I), one or more order +4 prefixes, and/or an order +8 proclitic.

All modes other than the Perfective, the Future, and most varieties of Imperfective require an aspect prefix (∅-for Telic aspect; *na-*, *ɢa-*, or *ga-* for Atelic aspect), which is indicated here as ASP-. The choice of aspect prefix is determined by the following hierarchy:

(1) Thematic aspect < Derivational aspect < Epiaspect

That is, the aspect marking lexically specified for a theme is overridden by that of an aspectual derivational string, which is in turn overridden by that of an epiaspect.

An alternate means of marking lexical aspect is employed in the Progressive and Durative epimodes as well as the Future; this is an order +8 proclitic, indicated here as ASP#. The choice of preverb is determined by its thematic or derivational aspect prefix: *ye'#* for a *ɢa*-aspect base, and *ke'#* for a *ga*-aspect base. In the Progressive, *ÿa'#* is required for all other bases (i.e. ∅-aspect and na-aspect bases) except where the base contains an order +8d directional proclitic; these do not cooccur with *ÿa‘#*.

The reason for the existence of two distinct means for marking lexical aspect--aspect prefixes and aspect proclitics--can be explained as follows. In the Progressive and Durative epiaspects, the aspect prefixes function as markers of epiaspect (*ga-* for Progressive and *na-* for Durative) rather than lexical aspect. Since the aspect prefixes are preempted for marking epiaspect, the aspect proclitics take over the function of marking lexical aspect. Similarly in the Future, *ga-* functions as a marker of mode, precluding the occurrence of the other aspect prefixes; here again, aspect proclitics are used to indicate lexical aspect.

In two instances, optional or root-specific stem variation has proved difficult to summarize and has been abbreviated so as to avoid awkward redundancy. In the Telic Potential, the Telic Perfective Habitual, and the Telic Hortative, the usual stem variant for closed roots is the ‘-stem, except that in forms of Processive themes without aspectual derivational strings, there is free variation between the ‘-stem and the ÿ-stem for closed roots.[1] Moreover, whereas most open roots take the ‘-stem in the Telic Potential, the Telic Imperative, and the Telic Hortative, a small class of open roots occurring only in Processive Telic themes take the ÿ-stem in these modes.[2] Both types of variation are abbreviated as ‘~-ÿ* in Figure 37.

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[1] Story notes that forms with the ÿ-stem ‘have not been found to occur with directionals’ (Story 1966:11.2221, p. 248); neither have I found such forms.

[2] Such themes will be flagged in lexical entries by using Ø(-ÿ) rather than Ø for the aspect label. They are illustrated in 7.1.2.2.

Figure 37. Formation of the simplex modes

Affix order number:	+8	+4	+1a	-3	-4
DECLARATIVE MODES					
Imperfective: occurs with Decessive, Prohibitive-Optative, Subordinative, and Gerundive.					
·-Processive/Positional Imperfective					
Assertive Realis				·	
Non-assertive/Irrealis				‘	
‘-Processive/Iterative Imperfective				‘	
’-Processive Imperfective (open roots only)				’	
n-Positional/Processive Imperfective				*-n*	
Obstruent-suffixed Processive/Iterative Imperfectives (where *-X* can be *-x̧*, *-ǯ*, *-g*, *-s’*, *-ł’*, *-d*, *-x’*, *-t’*)					
	(ASP#)				*-X*
yu‘#g-Processive/Iterative Processive Imperfective					
Assertive Realis	*yu‘#*		+I		*-g*
Non-assertive/Irrealis	*yu‘#*				*-g*
Progressive Imperfective					
	ASP#	*na-*		*-n*	
·-Stative Imperfective					
Assertive Realis			+I	·	
Non-assertive/Irrealis				‘	

Affix order number:	+8	+4	+1a	-3	-4
ÿ-Stative Imperfective					
Assertive Realis			+I	*-ÿ*[3]	
Non-assertive/Irrealis					
Closed root				*-ÿ*	
Open root				’	
Stative Imperfective with invariable root					
Assertive Realis			+I	(Invar.)	
Non-assertive/Irrealis				(Invar.)	
Extensional ‘-Stative Imperfective					
Assertive Realis		ASP-	+I	‘	
Non-assertive/Irrealis		ASP-		‘	
Extensional ÿ-Stative Imperfective (open stems only)					
Assertive Realis		ASP-	+I	*-ÿ*	
Non-assertive/Irrealis		ASP-		’	
Multiple-positional Stative Imperfective					
Assertive Realis		ASP-	+I	*-g(-d)*[4]	
Non-assertive/Irrealis		ASP-		*-g(-d)*	

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[3] Stative imperfectives formed from themes meaning ‘to be’ with the stem -ti*‘ irregularly take ‘ rather than *-ÿ* in the Assertive Realis stem.

[4] In the rare known examples, *-g* occurs after an closed root, and *-g^w-d* after an open root.

Affix order number:	+8	+4	+1a	-3	-4
Perfective: occurs with Decessive, Prohibitive-Optative, Subordinative, and Gerundive.					
Telic Perfective					
Assertive Realis		*ÿu-*	+I	*-ÿ*	
Non-assertive/Irrealis		*ÿu-*		’	
Atelic Perfective					
Assertive Realis		*ÿu-*	+I	‘	
Non-assertive/Irrealis		*ÿu-*		‘	
Realizational					
Assertive Realis		ASP-	+I	·	
Future: occurs with Decessive and Subordinative.					
Assertive Realis	ASP#	*ga-ŭ-ɢa-*		·	
Non-assertive/Irrealis	ASP#	*ga-ŭ-ɢa-*		‘	
Potential: occurs with Decessive.					
Assertive		*u*-ASP-ɢ*a*-	+I	‘~ *-ÿ**	
Decessive		*u*-ASP-ɢ*a*-		‘~ *-ÿ**	
Habitual: occurs with Decessive and Subordinative.					
Telic Habitual					
Open root		*u-*		*-ÿ*	-ǯ
Closed root		*u-*		‘~ *-ÿ**	-ǯ

Affix order number:	+8	+4	+1a	-3	-4
Atelic Habitual		ASP-			-ǯ
DEONTIC MODES					
Imperative					
Telic Imperative					
Open root				‘~-*ÿ**	
Closed root					
after the proclitics *ke‘#*, *ye‘#*, *ˀi‘ɢ#*, *da‘ɢ#*, *da‘g#*, *ne‘ɫ#*, and *ɢunaÿé’#*[5]				‘	
elsewhere				-*ÿ*	
Atelic Imperative		ASP-		‘	
Hortative		ASP-*ɢa*-		‘~-*ÿ**	(-*i*‘)
Admonitive		*u*-ASP-		·	
CIRCUMSTANTIAL MODES					
Consecutive		ASP-[6]		·	
Conditional		ASP-		-*n*	-(*n*)*i*‘
Contingent		ASP-*ɢa*-		-*n*	-*ín*

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[5] According to Story 1966:234-5.

[6] Story (1966:193) cites a mode that she calls the ‘conjunctive perfective’, semantically identical with the Consecutive and formally differing only in having the perfective prefix *ÿu*- in place of ASP-. I have no examples of this in my corpus, and have been unable to confirm Story ’s example with WS.

6.2. The composite modes

The composite modes are formed by placing a form of the auxiliary after a verb in a simplex mode. Where the simplex mode has Assertive and Non-assertive variants, the Non-assertive variant is used, and since the stem of the simplex verb is phonologically proclitic to the auxiliary, the rules producing the attributive/proclitic stem variant apply; these are given in 5.1.3.(11)-(15). The formal structure of the occurring composite modes is given in Figure 38.

Composite mode	**Simplex mode**	**Auxiliary**
Imperfective Habitual	Imperfective	*#nu‘ǯ*
Future Habitual	Future	*#nu‘ǯ*
Consecutive	Consecutive	*#ní·gʷ*
Imperfective Consecutive	Imperfective	*#ní·gʷ*
Future Consecutive	Future	*#ní·gʷ*
Conditional	Consecutive	*#nígʷni‘*
Imperfective Conditional	Imperfective	*#nígʷni‘*
Future Conditional	Future	*#nígʷni‘*
Contingent	Consecutive	*#ɢanígún*
Imperfective Contingent	Imperfective	*#ɢanígún*
Future Contingent	Future	*#ɢanígún*

Figure 38. Formation of the composite modes

Note that a composite mode corresponding to each of the three simplex Circumstantial modes is formed by adding the appropriate Circumstantial auxiliary to the Consecutive. These composite modes are semantically and syntactically equivalent to the corresponding simplex modes. Similarly, the composite Imperfective modes are semantically and syntactically equivalent to simplex modes of the corresponding Durative epiaspect, where such exist.[7] As mentioned in 4.2.4, the reason for the existence of these competing forms is phonological: the combination of order -4 outer mode suffixes with invariable roots or invariant stems may be phonologically awkward and/or hard to parse, and can be avoided by using the auxiliaries rather than the outer mode suffixes.[8] In particular, combinations of these suffixes with stems ending in consonant clusters are so avoided by most speakers.

(2) Theme *ǯ-ka-S-ł + D-nig** (na: '-Process., invariant stem) 'S tells a/the story'

(2b) *ǯ-kanx̣ałni'gǯ* or *ǯ-kax̣ałni'g#nu'ǯ* (Habitual) 'I always tell the story'

(2c) *ǯ-kanx̣ałni'gni·* or *ǯ-kanx̣ałni'g#nigʷni'* (Conditional) 'when/if I tell the story'

(3a) Theme *S-∅-gud** (motion) 'single S walks, goes on foot', with *yu'#* (0: (I)-g-Iter.) 'moving back and forth, to and fro'

(3b) *yu'#x̣agudgu#nu'ǯ* (instead of ?**yu'#nx̣agúdgúǯ*) (Iterative Habitual) 'I always go back and forth (repeatedly)'

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[7] As pointed out in 6.5, Durative epiaspectual paradigms are formed neither from Stative Imperfectives nor from Processive ·-Imperfectives and '-Imperfectives.

[8] The Consecutive is similarly hard to parse with invariable stems, and since it completes the triad of Circumstantial modes, behaves like them in this regard. The use of the composite modes appears to be (virtually) obligatory with invariant stems ending with consonant clusters, and (perhaps) preferred with other invariant stems.

(3c) *yu‘#nx̣agudgu#nígʷni‘* (instead of ?**yu‘#nx̣agúdguni‘*) (Iterative Conditional) ‘when/if I go back and forth (repeatedly)’

(4a) Theme *O-S-∅-ˀa'x̣ǯ* (ga: root-Stat. with stem *-ˀax̣ǯ*) ‘S hears O’

(4b) *x̣aˀax̣ǯi#nu‘ǯ* (instead of ?**gax̣aˀá'x̣ǯiǯ*) (Imperfective Habitual) ‘I always hear it’

(4c) *x̣aˀax̣ǯi#nígʷni‘* (instead of ?**gax̣aˀá'x̣ǯini‘*) (Imperfective Conditional) ‘when/if I hear it’

Example (3) illustrates that for Stative verbs, composite Imperfective forms may serve to replace phonologically awkward simplex non-Imperfective forms.

6.3. Epimode and status

The epimode and status categories are added to the modes as follows. First, if there is a special Non-assertive/Irrealis form of the mode, this is used in all cases where the verb is marked for status (i.e. Irrealis, except for cases covered by rule 6.4.(1) below) or epimode (i.e. Prohibitive-Optative or Decessive), as well in Subordinative forms and verbal nouns. The Assertive Realis form is therefore used only where the verb is Realis, not Subordinative, and not marked for epimode. In addition, we find the markers of status and epimode given in Figure 39.

Note that the Subordinative Decessive is formed analytically, by placing the modifier *ÿí·ÿi‘* after the Subordinative form of the verb, as seen in (1). This modifier also occurs postnominally, where it translates ‘former N, ex-N’.

(5a) Theme *O-S-s-ku•‘* (∅: Involunt. Event.) ‘S comes to know, realizes O’

(5b) *x̣ʷasikú·* (Perfective) ‘I know it’

(5c) *x̣ʷasikuwu N* (Attributive Perfective) ‘N which I know’

(5d) *x̣ʷasaku‘wú·* (Subordinative Perfective) ‘that/when I know it’

(5e) *x̣ʷasakú·wu‘n* (Decessive Perfective) ‘I used to know it’

STATUS

Realis: (unmarked)

Irrealis: *u-* (order +4)

EPIMODE

Assertive: (unmarked)

Prohibitive-Optative: *-iʻ*ɢ ~ -ɢ (order -5)[9]

Decessive:

Independent: *-iʻn* (order -5)

Attributive: *-i* (order -5)

Subordinative: *ÿí·ÿiʻ* (after the Subordinative form)

Figure 39. Formation of epimode and status

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[9] -ɢ is a preferred alternate to *-iʻ*ɢ after stems ending in a vowel.

(5f) *x̣ʷasakú·wu N* (Attributive Decessive Perfective) 'N which I used to know'

(5g) *x̣ʷasaku'wú· ÿí·ÿi'* (Subordinative Decessive Perfective) 'that/when I used to know it'

The Prohibitive-Optative epimode combines only with the Imperfective and Perfective modes. The Decessive epimode combines with all Declarative modes except for the Realizational. Irrealis status is distinguished for Declarative modes other than the Realizational and for Circumstantial modes, but not for Deontic modes: the Imperative and Hortative are inherently Realis; and the Admonitive is inherently Irrealis, as is the Prohibitive-Optative epimode.

6.4. Clause type

Subordinative verb forms are constructed from the Declarative modes by adding the order -5 suffix *-i'* to the Non-assertive/ Irrealis stem variant.

Attributive verb forms are constructed from Assertive or Decessive forms of the Declarative modes by applying rules 4.2.5.(86)-(88), which deal with the occurrence of the order -5 attributive suffix *-i*, and 5.1.3.(21)-(27), which deal with the form of the stem. Here I will only remind the reader that the Attributive form of a Decessive verb is made by replacing the decessive suffix *-i'n* with the attributive suffix *-i* in Northern Tlingit, and that elsewhere the attributive suffix is added only to +I verb forms. Where the Attributive forms of both Assertive and Decessive have *-i*, therefore, the difference between these is manifested only in the stem variant and the presence or absence of the I-component of the classifier. It is probably the necessity of avoiding confusion between Assertive and Decessive Attributives that motivates the following rule:

(6) The Attributive Assertive Irrealis form is +I (i.e. has the I-component of the classifier) where the corresponding Assertive Realis form is also +I, despite the fact that the corresponding non-Attributive Assertive Irrealis form is -I in every mode except for the Potential (see further 8.1.1.5).

6.5. Epiaspect

The term IMPERFECTIVE is here used for both a mode and an inflectional aspect. In terms of the modal system, the Imperfective mode may be regarded as the unmarked member of the set of Declarative modes: all other Declarative modes are semantically marked for tense or resultative aspect; the Imperfective is not, and as a result is interpreted with the semantically unmarked tense: the present. In terms of the inflectual aspectual system, however, the Imperfective mode may be regarded as marked for imperfective aspect.

As we will demonstrate in chapter 7 (see Figures 40 and 41), Tlingit has a profuse variety of Imperfective subtypes; typically, these subtypes may be characterized semantically as referring to different subcategories of imperfective aspect. Iterative Imperfectives and marginally also most Processive Imperfectives can form the basis of a full modal paradigm, where the semantic properties of each mode is combines with the aspectual semantic properties of the particular Imperfective subtype. Such a paradigm will be called a EPIASPECTUAL PARADIGM, and the subtype of Imperfective that forms the basis of the paradigm will be called the EPIASPECT. Many verbs may take more than one type of Imperfective, and most of these Imperfectives can (at least marginally) form their own epiaspectual paradigms. Thus epiaspect constitutes a separate dimension of the inflectional schetic system.

Formally, the category of epiaspect may be divided into two subcategories: Progressive and Durative. Progressive paradigms are formed from Progressive Imperfectives. Durative paradigms are formed from Iterative Imperfectives and marginally also from Processive Imperfectives that do not exhibit stem variation: specifically, from obstruent-suffixed Imperfectives and ‘-Imperfectives, but not from ·-Processive and ’-Processive Imperfectives. The occurrence of Durative epiaspectual paradigms is thus limited both lexically and phonologically: a verb theme is lexically subcategorized for the types of Imperfectives that may occur with it, and of these, Durative paradigms may be formed only from invariable-stem Imperfectives may have Durative paradigms.

The occurrence of the Progressive epiaspect is also lexically limited. Stative themes and most bases formed from Motion themes freely take Progressives. Underived Processive themes, on the other hand, do not take Progressive paradigms, but if an aspectual derivational string is added to the Processive theme, the resulting base may take a Progressive paradigm; see further 6.7.3.[10]

The Progressive epiaspect always has a directional proclitic of order +8a or +8d. This proclitic is

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[10] A base formed by the addition of an aspectual derivational string to an Processive theme behaves in effect like a Motion base.

ÿa'# for Telic (0-aspect) or na-aspect bases, unless the base contains an order +8d directional proclitic;

ye'# for ɢa-aspect bases;

ke'# for ga-aspect bases.

In addition, the Progressive takes the prefix *ga-* in place of the lexically specified aspect marker in all modes except the Imperfective, Perfective, and Future. An initially confusing fact about the Progressive is that the Progressive Imperfective itself takes the prefix *na-* rather than the prefix *ga-* that characterizes the rest of the Progressive paradigm (for the formation of the Progressive Imperfective, see Figure 37). There is no Progressive Perfective, a fact that will be discussed in 8.4.

There are numerous subtypes of the Durative epiaspect, each characterized by a Durative stem consisting of root plus one or more durative suffixes of order -2. Since the inner mode suffixes of order -3 are zeroed out following these durative suffixes, the net result is that the durative stem remains constant throughout the Durative paradigm. (Note, however, that the outer mode suffixes of order -4 are added to the stem, not the root, and thus occur in the Durative paradigm as elsewhere.) Certain common Durative types also require directional proclitics.

In addition, the Durative epiaspect requires *na-* in place of the lexically specified aspect marker in all modes except the Imperfective, Perfective, and Future, in the same way as the Progressive requires *ga-*.

Durative paradigms formed from Primary Imperfectives are rare, but it seems possible to construct them from virtually all obstruent-suffixed Processive Imperfectives. Moreover, certain Atelic themes regularly take Durative paradigms formed from ‘-Imperfectives; such themes are described and exemplified in 7.1.1.3. Otherwise, Durative paradigms are not formed from ‘-Imperfectives; nor are they formed from ·-Imperfectives or ’-Imperfectives.

Durative paradigms are freely formed from secondary Imperfectives, i.e. Iterative and Multiple-iterative Imperfectives. Iteratives are almost always predictable from the lexical aspectual category of the theme or the aspectual derivational string.[11] For details and exemplification see chapter 7, especially Figures 42 and 43.

6.6. Productive aspectual derivatives

Most productive aspectual derivatives occur with Motion themes; indeed, Motion themes cannot occur without aspectual derivational strings because they have no inherent aspect. Such derivational strings are described and exemplified in section 7.2.

In contrast with Motion themes, no productive aspectual derivatives occur with Stative themes, and only a few occur with Processive and Eventive themes. These may be assigned to three groups. First are the Inceptive and Terminative derivatives, which specify the beginning or end of a process or event. These do not as a rule occur with themes denoting momentaneous events. They are occur with Motion themes as well as Processive themes.

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[11] A few verbs take unpredictable x̧-Iteratives or x̧-x’-Iteratives alongside the predictable Iterative.

Inceptive: *ɢunaÿé'#/ɢuné'#* (∅: x̣-Iter.) 'beginning'

Terminative: *ÿan#(~ÿax̣#~ÿánde')* (∅: '-Iter.) 'finishing'

Second are aspectual derivatives used with transitive and objective verbs that specify that an event or process occurs exhaustively or near-exhaustively with respect to the object, and so usually implies that the object, if a count noun, is plural.

Exhaustive(1): *PO-x̣#ÿa-s-* (∅: x̣-Iter.) 'affecting all/much/many O along PO';

(with *ÿax̣#* for *PO-x̣*): *ÿax̣#ÿa-s-* (∅: x̣-Iter.) 'exhausting O; affecting all/much/many O'.

Exhaustive(2): *PO-x̣* (ɢ*a) 'affecting all/much/many O along PO'*

(with ÿax̣# for *PO-x̣*): *ÿax̣#* (ɢa) 'exhausting O; affecting all/much/many O'.

In both cases, the PP *PO-x̣* 'along PO' is introduced by the string; by far most commonly, however, the PO slot is filled by *ÿán* 'shore, *ground', the result being the contracted proclitic *ÿax̣#*; this is illustrated in (1). The second Exhaustive is extremely rare, and indeed all examples I have of it are elicited.

(7a) Theme *O-S-∅-ˀun*'* (∅, d-Ictic-Iter.) 'S shoots O with gun'

(7b) *ÿax̣#ˀÿa-w-du-ƛi-ˀún* (Exhaustive(1) with *ÿax̣#*)

(exhaustively#'face'-PERF-INDEF-CL-shoot)

'they (INDEF) shot all of them, a bunch of them'

(7c) *du-x̣'us-ÿi'-x̣ ˀad-ÿa-w-du-ƛi-ˀún* (Exhaustive(1) with *PO-x̣*)

(3NEU-foot-anticipation-along thing-'face'-PERF-INDEF-CL-shoot) ‘they (INDEF) went to great lengths to get him/her to come to the potlatch’ (lit. ‘they shot up everything along the way he/she was to walk’)[12]

Third are two derivatives with the proclitic *daʻɢ#*, *qʷá·ɢx̣/qá·ɢʷx̣#daʻɢ#* (∅) ‘mistakenly, in error’ and *quná·x̣#daʻɢ#* (∅) ‘explaining, clarifying’, and the derivative *qud#* (ga) ‘getting carried away’. These derivatives are rare, but seem to be fairly productive for Processive verbs.

(8a) Theme *O-S-∅-x̣a•·* (∅: ’-Process.) ‘S eats O’

(8b) *qʷá·ɢx̣#daʻɢ#x̣ʷaʻx̣á·* ‘I made the mistake of eating it (e.g. I ate it and got sick from it)’

(8c) *qud#ʔadx̣ʷaʻx̣á·* ‘I got carried away eating’

6.7. A sample conjugation

The formal system of inflectional schetic categories is here illustrated with the theme *O-S-∅-x̣a•·*(∅: ’-Impf.) ‘S eats O’. Where possible, forms are cited with first person singular subject (*x̣a-*) and third person neutral object (*∅-*).All possible combinations of mode, epimode, status, and clause type are given for the primary paradigm in 6.7.1-2. For the epiaspectually and aspectually derived paradigms in 6.7.3-4, only the basic (usually Realis Assertive) form of each mode is given.

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[12] The effect is something like ‘they left no stone unturned along his/her way’, i.e. preparing his/her way so dramatically and thoroughly that he/she could not possibly refuse to come (the inalienable noun *NO-x̣’us-ÿi‘* refers to NO’s anticipated route).

6.7.1. Simplex modes

6.7.1.1. Declarative modes

IMPERFECTIVE

Realis Assertive: *x̣ax̣á* ‘I am eating it; I (generally) eat it’

Attributive: *x̣ax̣a*[13]

Subordinative: *x̣ax̣a ÿí·*[14]

Irrealis Assertive: *ƛé·ł x̣ʷax̣á* ‘I’m not eating it; I (generally) don’t eat it’[15]

Attributive: *ł x̣ʷax̣á*

Subordinative: *ł x̣ʷax̣a ÿí·*

Realis Decessive: *x̣ax̣á ÿi‘n* ‘I ate it (but am now hungry again); I (generally) used to eat it’

Attributive: *x̣ax̣á ÿi*

Subordinative: *x̣ax̣a ÿí· ÿí·ÿi‘*

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[13] The attributive is used in apposition with a following noun: *x̣ax̣a* N ‘N which I eat/am eating’; *x̣ax̣a ʔád* ‘what I eat/am eating’ (N = ʔád ‘thing’); *ʔáx’ x̣ax̣a yé* ‘where I eat/am eating’ (N = yé ‘place’; ʔá-x’ ‘at it’); *ʔa‘dé· x̣ax̣a yé* ‘the way I eat/am eating’ (*ʔa‘dé·* in this construction ‘thus’).

[14] Examples: *ʔax̣-tuwá’ sigú· x̣ax̣a ÿí·* ‘I want to eat it’ or *x̣ax̣a ÿí·-dáx̣* ‘after I was eating it’. the Perfective subordinative is more usual than the Imperfective subordinative with non-punctual themes.

[15] The Irrealis also occurs with dubitative and presumptive constructions of the types *gwáł x̣ʷax̣á* ‘perhaps I am eating it’ and *x̣á’d#gíyá x̣ʷax̣á* ‘I guess it’s fish I’m eating; I must be eating fish’.

Irrealis Decessive: *ƛé·ł x̣ʷax̣áˁÿi‘n* ‘I didn’t eat it (but I’ve since eaten it); I (generally) didn’t use to eat it’

Attributive: *ł x̣ʷax̣áˁÿi*

Subordinative: *ł x̣ʷax̣aˁÿí· ÿí·ÿi‘*

Prohibitive-Optative: *ƛ́ił x̣ʷax̣á·*ɢ ‘let me not eat it’; *guʔa‘ł (gʷšé) x̣ʷax̣á·*ɢ ‘I hope I eat it’[16]

PERFECTIVE

Realis Assertive: *x̣ʷaˁx̣á·* ‘I ate it’

Attributive: *x̣ʷaˁx̣aÿi*

Subordinative: *x̣ʷax̣aˁÿí·*

Irrealis Assertive: *ƛé·ł x̣ʷax̣á* ‘I didn’t eat it’

Attributive: *ł x̣ʷaˁx̣aÿi*

Subordinative: *ł x̣ʷax̣aˁÿí·*

Realis Decessive: *x̣ʷax̣áˁÿi‘n* ‘I ate it (but am now hungry again)’

Attributive: *x̣ʷax̣áˁÿi*

Subordinative: *x̣ʷax̣aˁÿí· ÿí·ÿi‘*

Irrealis Decessive: *ƛé·ł x̣ʷax̣áˁÿi‘n* ‘I didn’t eat it (but have since eaten it)’

Attributive: *ł x̣ʷax̣áˁÿi*

Subordinative: *ł x̣ʷax̣aˁÿí· ÿí·ÿi‘*

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[16] The Prohibitive-Optative is always Irrealis in form and functions both as negative hortative/imperative and as true optative, depending on the clause-initial particle.

Prohibitive-Optative: *ƛ̓ił x̣ʷax̣aˁÿí·*ɢ (or *-x̣á·*ɢ) ‘let me not eat it’; *guʔa‘ł (gʷšé) x̣ʷax̣aˁÿí·*ɢ (or *-x̣á·*ɢ) ‘I hope I eat it’

REALIZATIONAL

Realis Assertive: *x̣a‘x̣á·* ‘I finally ate it’

FUTURE

Realis Assertive: *kuqax̣á·* ‘I will eat it; I’m going to eat it’

Attributive: *kuqax̣a‘*

Subordinative: *kuqax̣aˁÿí·*

Irrealis Assertive: *ƛé·ł kuqax̣a‘* ‘I won’t eat/am not going to eat it’

Attributive: *ł kuqax̣a‘*

Subordinative: *ł kuqax̣aˁÿí·*

Realis Decessive: *kuqax̣aˁÿí·n* ‘I was going to eat it’

Attributive: *kuqax̣aˁÿi*

Subordinative: *kuqax̣aˁÿí· ÿí·ÿi‘*

Irrealis Decessive: *ƛé·ł kuqax̣aˁÿí·n* ‘I wasn’t going to eat it’

Attributive: *ł kuqax̣aˁÿi*

Subordinative: *ł kuqax̣aˁÿí· ÿí·ÿi‘*

POTENTIAL

Realis Assertive: *qʷa‘x̣a‘* ‘I may/might eat it’

Attributive: *qʷa‘x̣aˁÿi*[17]

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[17] The attributive is used in constructions like the following: *qʷa‘x̣aˁÿi ʔád* ‘something for me to eat’; *ƛé·ł qʷa‘x̣aˁÿi ʔád (qu‘stí)* ‘there is nothing for me to eat’ (*ƛé·ł qu‘stí* ‘it does not exist’); *ʔa‘dé· qʷa‘x̣aˁÿi yé* ‘way for me to eat it’; *ƛé·ł ʔa‘dé·*

Irrealis Assertive: *ƛé·ł qʷaʻx̣aʻ* ‘I may/might not eat it’

Attributive: *ł qʷaʻx̣ay̆i*

Realis Decessive: *qʷax̣ay̆í·n* ‘I would eat it; I would/might have eaten it’

Attributive: *qʷax̣ay̆i*

Irrealis Decessive: *ƛé·ł qʷax̣ay̆í·n* ‘I would not eat it; I would/might have eaten it’

Attributive: *ł qʷax̣ay̆i*

HABITUAL

Realis Assertive: *x̣ʷax̣á·ÿǯ* ‘I always eat it; I eat it (on occasion, every time)’

Attributive: *x̣ʷax̣á·ÿǯi*

Subordinative: (apparently lacking)

Irrealis Assertive: *ƛé·ł x̣ʷax̣á·ÿǯ* ‘I haven’t (yet) eaten it’

Attributive: *ł x̣ʷax̣á·ÿǯi*[18]

Subordinative: *ł x̣ʷax̣á·ÿǯiʻ*[19]

Realis Decessive: *x̣ʷax̣á·ÿǯiʻn* ‘I used to eat it (on occasion, every time)’

Attributive: *x̣ʷax̣á·ÿǯi*

Subordinative: (apparently lacking)

Irrealis Decessive: *ƛé·ł x̣ʷax̣á·ÿǯiʻn* ‘I hadn’t (yet) eaten it’

Attributive: *ł x̣ʷax̣á·ÿǯi*

Subordinative: *ł x̣ʷax̣á·ÿǯiʻ*

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qʷaʻx̣ay̆i yé ‘I cannot eat it (lit. there is no way for me to eat it)’.

[18] But dubitative *gʷáł x̣ʷax̣á·ÿǯ* ‘maybe I eat it (on occasion)’

[19] This form means ‘I not (yet) having eaten it; before I eat/ate it’.

6.7.1.2. Deontic modes

IMPERATIVE[20]

Realis: *x̣á* ‘eat it!’

Irrealis: (suppleted by the Prohibitive)

HORTATIVE[21]

Realis: *qax̣a‘* (or *-x̣ay̓í·*) ‘let me eat it!’

Irrealis: (suppleted by the Prohibitive)

Dependent form with *-d*:[22]

Realis: *qax̣a‘d* (or *-x̣ay̓í·d*) ‘in order that I should eat it’

Irrealis: *ł qʷax̣a‘d* (or *-x̣ay̓í·d*) ‘in order that I should not eat it’

ADMONITIVE

Realis: *x̣ax̣á·#cé* ‘let me not eat it; watch out or I’ll eat it!’

Dependent form with *-ɢa‘*:

Irrealis: *x̣ʷax̣á·ɢa‘* ‘so I don’t eat it; lest I eat it; or else I’ll eat it’

6.7.1.3. Circumstantial Modes

CONSECUTIVE

Realis: *x̣ax̣á·* or composite *x̣ax̣a‘#ní·gʷ* ‘when/after I ate it’

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[20] The Imperative occurs only with second person subject.

[21] The simple Hortative occurs only with non-second person subject.

[22] Both *-d* and *-ɢa‘* are postpositions, but it might be desirable to use special names for the constructions with them. Naish and Story use ‘purposive’ for the hortative with *-d*.

Irrealis: *ł x̣ʷax̣á·* or composite *ł x̣ʷax̣a‘#ní·gʷ* ‘when/after I didn’t eat it’

CONDITIONAL

Realis: *x̣ax̣é·ni‘* or composite *x̣ax̣a‘#nígʷni‘* ‘when/if I eat it (in the future)’

Irrealis: *ł x̣ʷax̣é·ni‘* or composite *ł x̣ʷax̣a‘#nígʷni‘* ‘when/if I don’t eat it’

CONTINGENT

Realis: *qax̣é·nín* or composite *x̣ax̣a‘#ɢanígún* ‘when(ever) I eat it (on occasion)’

Irrealis: *ł qʷax̣é·nín* or composite *ł x̣ʷax̣a‘#ɢanígún* ‘when(ever) I don’t eat it’

6.7.2. Composite modes.

6.7.2.1. Composite Imperfective modes

IMPERFECTIVE HABITUAL

Realis Assertive: *x̣ax̣á·#nu‘ǯ* ‘I always eat it; I eat it (on occasion, every time)’

Attributive: *x̣ax̣á·#nuǯ*

Subordinative: *x̣ax̣á·#nu‘ǯí·*

Irrealis Assertive: *ƛé·ł x̣ʷax̣á·#nu‘ǯ* ‘I never eat it; I don’t eat it (on occasion, every time)’

Attributive: *ł x̣ʷax̣á·#nuǯ*

Subordinative: *ł x̣ʷax̣á·#nu‘ǯí·*

Realis Decessive: *x̣ax̣á·#nu‘ǯí·n* ‘I used to eat it’

Attributive: *x̣ax̣á·#nu‘ǯi*

Subordinative: *x̣ax̣á·#nu‘ǯí· ÿí·ÿi‘*

Irrealis Decessive: *ƛé·ɬ x̣ʷax̣á·#nuʻǯí·n* ‘I didn’t use to eat it’

Attributive: *ɬ x̣ʷax̣á·#nuʻǯi*

Subordinative: *ɬ x̣ʷax̣á·#nuʻǯí· ÿí·ÿiʻ*

IMPERFECTIVE CONSECUTIVE

Realis: *x̣ax̣á·#ní·gʷ* ‘when/after I ate it’

Irrealis: *ɬ x̣ʷax̣á·#ní·gʷ* ‘when/after I didn’t eat it’

IMPERFECTIVE CONDITIONAL

Realis: *x̣ax̣á·#nígʷniʻ* ‘when/if eat it’

Irrealis: *ɬ x̣ʷax̣á·#nígʷniʻ* ‘when/if I don’t eat it’

IMPERFECTIVE CONTINGENT

Realis: *x̣ax̣á·#ɢanígún* ‘when(ever) I eat it’

Irrealis: *ɬ x̣ʷax̣á·#ɢanígún* ‘when(ever) I don’t eat it’

6.7.2.2. Composite Future modes

FUTURE HABITUAL

Realis Assertive: *kuqax̣aʻ#nuʻǯ* ‘I’m always going to eat it’

Attributive: *kuqax̣aʻ#nuǯ*

Subordinative: *kuqax̣aʻ#nuʻǯí·*

Irrealis Assertive: *ƛé·ɬ kuqax̣aʻ#nuʻǯ* ‘I’m never going to eat it’

Attributive: *ɬ kuqax̣aʻ#nuǯ*

Subordinative: *ɬ kuqax̣aʻ#nuʻǯí·*

Realis Decessive: *kuqax̣aʻ#nuʻǯí·n* ‘I was always going to eat it’

Attributive: *kuqax̣aʻ#nuʻǯi*

Subordinative: *kuqax̣a‘#nu‘ǯí· ÿí·ÿi‘*

Irrealis Decessive: *ƛé·ł kuqax̣a‘#nu‘ǯí·n* ‘I was never going to eat it’

Attributive: *ł kuqax̣a‘#nu‘ǯi*

Subordinative: *ł kuqax̣a‘#nu‘ǯí· ÿí·ÿi‘*

FUTURE CONSECUTIVE

Realis: *kuqax̣a‘#ní·gʷ* ‘when/after I was going to eat it’

Irrealis: *ł kuqax̣a‘#ní·gʷ* ‘when/after I was not going to eat it’

FUTURE CONDITIONAL

Realis: *kuqax̣a‘#nígʷni‘* ‘when/if I am going to eat it’

Irrealis: *ł kuqax̣a‘#nígʷni‘* ‘when/if I am not going to eat it’

FUTURE CONTINGENT

Realis: *kuqax̣a‘#ɢanígún* ‘when(ever) I am going to eat it’

Irrealis: *ł kuqax̣a‘#ɢanígún* ‘when(ever) I am not going to eat it’

6.7.3. Epiaspectual paradigms

6.7.3.1. Progressive

The Progressive epiaspect occurs freely with Stative themes and Motion bases and not with underived Processive themes. However, the Progressive epiaspect may occur where an aspectual derivational string is added to an Processive theme, thus in effect producing a Motion base. Thus, for example, the Inceptive, Terminative, and Exhaustive derivatives take Progressive paradigms, as seen (1). Furthermore, where semantically appropriate, Processive themes can be treated as Motion themes, taking the aspectual derivational strings that occur with them, as illustrated by (2) and (3):

(9) Terminative: ***ÿánde‘ ÿa‘#ṇx̣ax̣é·n*** **’I am eating it to completion; I am finishing eating it’.**

(10) With -- (na) ‘moving along’: ***ÿa‘#ṇx̣ax̣é·n*** **’I am going along eating’**

(11) With ***PO-de‘*** **(na) ‘moving (along) toward PO’:** ***ˀa-šú·-de‘ ÿa‘#ṇx̣ax̣é·n*** **’I am eating it along toward the end of it (e.g. eating my way along a bone toward the end of it)’**

I will use the paradigm formed from (9) to illustrate the Progressive forms. In this section and the following, I will provide only the basic (usually Realis Assertive) form of each mode; the possible combinations of mode, epimode, status, and clause type have already been illustrated in 6.7.1-2.

Imperfective: *ÿa‘#ṇx̣ax̣é·n* ‘I am eating it along’

Perfective: (lacking)

Realizational: *ÿa‘#gx̣a‘x̣á·* ‘I am/was (finally) eating it along’

Future: *ÿa‘#gʷqax̣á·* ‘I will be eating it along’

Potential: *ÿa‘#gʷqa‘x̣a‘* ‘I may be eating it along’

Habitual: *ÿa‘#gx̣ax̣é·ǯ* ‘I am always eating it along; I keep eating it along’

Imperative: *ÿa‘#gax̣á* ‘be eating it along!’

Hortative: *ÿa‘#gqax̣a‘(ÿí·)* ‘let me be eating it along!’

Admonitive: *ÿa‘#gx̣ax̣á·#cé* ‘see that I’m not eating it along!’

Consecutive: *ÿa‘#gx̣ax̣á·* or *ÿa‘#gx̣ax̣a‘#ní·gʷ* ‘when/after I was eating it along’

Conditional: *ÿa‘#gx̣ax̣é·ni‘* or *ÿa‘#gx̣ax̣a‘#nígʷni‘* ‘when/if I am eating it along’

Contingent: *ÿa‘#gqax̣é·nín* or *ÿa‘#gax̣a‘#ɢanígún* ‘when(ever) I am eating it along’

6.7.3.2. Durative

The theme *O-S-Ø-x̣a*·* (0: ’-Process., x̣-Iter.) ‘S eats O’ has two Imperfectives. The first is the Primary ‘-Processive Imperfective, which exhibits stem variation and therefore is not expandable into a Durative paradigm. The x̣-Iterative, on the other hand, has the invariable stem *-x̣é·x̣* and forms the basis of the following Durative epiaspectual paradigm.

Imperfective: *x̣ax̣é·x̣* ‘I keep eating it’

Perfective: (lacking)

Realizational: (*?nax̣a‘x̣é·x̣*)

Future: *kuqax̣é·x̣* ‘I will keep eating it’

Potential: *ʔunqa‘x̣é·x̣* ‘I may keep eating it’

Habitual: *?nax̣ax̣é·x̣ǯ* or composite (Imperfective Habitual) *x̣ax̣é·x̣#nu‘ǯ* ‘I always keep eating it’

Imperative: *nax̣é·x̣* ‘keep eating it!’

Hortative: *naqax̣é·x̣(i‘)* ‘let me keep eating it!’

Admonitive: *nax̣ax̣é·x̣#cé* ‘watch out or I’ll keep eating it’

Consecutive: *?nax̣ax̣é·x̣* or composite (Imperfective Consecutive) *x̣ax̣é·x̣#ní·gʷ* ‘when/after I kept eating it’

Conditional: *?nax̣ax̣é·x̣ni‘* or composite (Imperfective Conditional) *x̣ax̣é·x̣#nígʷni‘* ‘when/if I keep eating it’

Contingent: *?naqax̣é·x̣in* or composite (Imperfective Contingent) *x̣ax̣é·x̣#ɢanígún* ‘when(ever) I keep eating it’

6.7.4. Productive aspectual derivatives

Finally, we will illustrate the productive aspectual derivational strings listed in 6.6. The addition of one of these strings to the verb theme results in a verb base which can be fully inflected for the categories illustrated above (epiaspect, mode, epimode, status, and clause type). Of the Exhaustive strings, only the most common will be illustrated.

INCEPTIVE: *ɢunaÿé’#O-S-∅-x̣a*·(0: x̣-Iter.) ‘S begins to eat’

Perfective: *ɢunaÿé’#x̣ʷa‘x̣á·* ‘I began to eat it’

Realizational: *ɢunaÿé’#x̣a‘x̣á·* ‘I (finally) began to eat it’

Future: *ɢunaÿé’#gʷqax̣á·* ‘I will begin to eat it’

Potential: *ɢunaÿé’#qʷa‘x̣a‘* ‘I may begin to eat it’

Habitual: *ɢunaÿé’#x̣ʷax̣á·ÿǯ* ‘I always begin to eat it; I keep beginning to eat it’

Imperative: *ɢunaÿé’#x̣á* ‘begin to eat it!’

Hortative: *ɢunaÿé’#qax̣a‘(ÿí·)* ‘let me begin to eat it!’

Admonitive: *ɢunaÿé’#x̣ʷax̣á·#cé* ‘see that I don’t begin to eat it!’

Consecutive: *ɢunaÿé’#x̣ax̣á·* or *ɢunaÿé’#x̣ax̣a‘#ní·gʷ* ‘when/after I began to eat it’

Conditional: *ɢunaÿé’#x̣ax̣é·ni‘* or *ɢunaÿé’#x̣ax̣a‘#nígʷni‘* ‘when/if I begin to eat it’

Contingent: *ɢunaÿé’#qax̣é·nín* or *ɢunaÿé’#x̣ax̣a‘#ɢanígún* ‘when(ever) I begin to eat it’

Progressive Imperfective: *ɢunaÿé’#ÿa‘#nx̣ax̣é·n* ‘I’m beginning to eat it’

Iterative Imperfective: *ɢunaÿé’#x̣ax̣é·x̣* ‘I keep beginning to eat it’

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TERMINATIVE: *ÿan#(~ÿax̣#~ÿánde‘) O-S-∅-x̣a*·*(∅: ‘-Iter.) ‘S finishes eating O’

Perfective: *ÿan#x̣ʷa‘x̣á·* ‘I finished eating it’

Realizational: *ÿan#x̣a‘x̣á·* ‘I (finally) began eating it’

Future: *ÿan#kuqax̣á·* ‘I will finish eating it’

Potential: *ÿan#qʷa‘x̣a‘* ‘I may finish eating it’

Habitual: *ÿan#x̣ʷax̣á·ÿǯ* ‘I always finish eating it; I keep finishing eating it’

Imperative: *ÿan#x̣á* ‘finish eating it!’

Hortative: *ÿan#qax̣a‘(ÿí·)* ‘let me finish eating it!’

Admonitive: *ÿan#x̣ʷax̣á·#cé* ‘see that I don’t finish eating it!’

Consecutive: *ÿan#x̣ax̣á·* or *ÿan#x̣ax̣a‘#ní·gʷ* ‘when/after I finished eating it’

Conditional: *ÿan#x̣ax̣é·ni‘* or *ÿan#x̣ax̣a‘#nígʷni‘* ‘when/if I finish eating it’

Contingent: *ÿan#qax̣é·nín* or *ÿan#x̣ax̣a‘#ɢanígún* ‘when(ever) I finish eating it’

Progressive Imperfective: *ÿánde‘#ÿa‘#nx̣ax̣é·n* ‘I’m finishing eating it’

Iterative Imperfective: *ÿax̣#x̣ax̣a‘* ‘I keep finishing eating it’

EXHAUSTIVE: *ÿax̣#O-ÿa-S-s-x̣a*·* (∅: x̣-Iter.) ‘S eats all/much/many O’

Perfective: *ÿax̣#ÿax̣ʷsix̣á·* ‘I finished eating all/many of them’

Realizational: *ÿax̣#ÿax̣six̣á·* ‘I (finally) began eating all/many of them’

Future: *ÿax̣#ÿagʷqasax̣á·* ‘I will eat all/many of them’

Potential: *ÿax̣#wu‘qasix̣a‘* ‘I may eat all/many of them’

Habitual: *ÿax̣#wu‘x̣sax̣á·ÿǯ* ‘I always eat all/many of them; I keep finishing eating all/many of them’

Imperative: *ÿax̣#ÿasax̣á* ‘eat all/many of them!’

Hortative: *ÿax̣#ÿaqasax̣a‘(ÿí·)* ‘let me eat all/many of them!’

Admonitive: *ÿax̣#wu‘x̣sax̣á·#cé* ‘see that I don’t eat all/many of them!’

Consecutive: *ÿax̣#ÿax̣sax̣á·* or *ÿax̣#ÿax̣sax̣a‘#ní·gʷ* ‘when/after I finished eating all/many of them’

Conditional: *ÿax̣#ÿax̣sax̣é·ni‘* or *ÿax̣#ÿax̣sax̣a‘#nígʷni‘* ‘when/if I eat all/many of them’

Contingent: *ÿax̣#ÿaqasax̣é·nín* or *ÿax̣#ÿax̣sax̣a‘#ɢanígún* ‘when(ever) I eat all/many of them’

Progressive Imperfective: *ÿánde‘#ÿa‘#ÿanax̣sax̣é·n* ‘I’m finishing eating all/many of them’

Iterative Imperfective: *ÿax̣#ÿax̣sax̣é·x̣* ‘I keep finishing eating all/many of them’

CHAPTER 7

LEXICAL ASPECTUAL CATEGORIES

The LEXICAL ASPECTUAL CATEGORY of a theme or derivational string is the aspectual information associated with it. The aspectual category of a theme may thus be called the THEMATIC ASPECTUAL CATEGORY. In order to specify completely the thematic aspectual category of a verb, we must provide three kinds of information:

(a) whether the theme is Motion or non-Motion;

(b) for non-Motion themes, which aspect marker the theme takes; and

(c) whether the theme has a primary Imperfective, and if so, which type.

Thematic aspectual categories may be split into two major groups on the basis of the lexically specified aspect. Themes with lexically specified aspect are called NON-MOTION THEMES, and those without lexically specified aspect, MOTION THEMES. Motion themes occur only with aspectual derivational strings, which provide the aspect marking.

Non-Motion themes may furthermore be divided on the basis of primary Imperfective type (to be defined below). Themes with a Positional Imperfective Imperfective are POSITIONAL THEMES; those with a primary Stative Imperfective are STATIVE THEMES; those with a primary Processive Imperfective are PROCESSIVE THEMES (the Imperfective types will be discussed in some detail below). These three theme types are further subdivisible into subtypes according to the the primary Imperfective type.

Themes that lack a primary Imperfective are Eventive themes; these are subdivided on the basis of the meaning of the Perfective. If the Perfective is semantically a resultative, the theme is called an Involuntary Eventive theme; otherwise it is simply called an Eventive theme. Thus themes are classifiable as shown in Figure 40.

Motion

with Extensional Stative Impf.: Extensional ÿ-Stative, Extensional ‘-Stative.

with Positional Impf.: n-Positional, ·-Positional.

Stative: ÿ-Stative, ·-Stative, ‘-Stative.

Processive: ·-Processive, ’-Processive, ‘-Processive, x̣-Processive, g-Processive, (I)g-Processive, ǯ-Processive, d-Processive, s’-Processive, ł’-Processive, x’-Processive, t’-Processive, Positional Processive

Eventive: Eventive, Involuntary Eventive.

Figure 40. Theme types

Among the Stative themes is a small and rather homogenous group of Dimensional themes; these are themes denoting a quantifiable physical attribute such as size or weight (e.g. ‘O is big’). Such themes are unique in having Comparative derivatives, which are used when the relative quantity of the attribute is specified (e.g. 'how big is O?'; 'O is so big'; 'O is big enough'; 'O is as big as X'; 'O is bigger than X').

The above categorization of non-motion theme types is crosscut by a division on the basis of lexical aspect. We may distinguish four categories on the basis of inflectional characteristics. These are here named after the aspect prefixes they require in most modes: **Ø-**, **na-**, **ɢa-**, and **ga-**. These fall into two superordinate groups, again on the basis of inflectional properties: in certain modes, the Ø-aspect requires a different stem variant from the other three. The Ø-aspect may be referred to as Telic, and the others as Atelic.

Telic Processive themes typically, although not invariably, fit the general description of a process culminating in a well-defined terminal point. Among Atelic themes, na-aspect is the default, except that Stative themes with invariable roots always take ga-aspect. Themes denoting dissolution, dissipation, cleaning or clearing away, and the like, are typically ɢa-aspect. Eventive themes denoting instantaneous events are typically ga-aspect. A further clue to the semantics of the ɢa- and ga-aspects is that they are associated with the directional proclitics *ye'#* 'down' and *ke'#* 'up', respectively. In many cases, however, the aspect marking of a theme is not predictable but must simply be learned. Furthermore, some Processive verbs may take both Telic and Atelic aspects, in which case the Atelic aspect focuses on the ongoing process and the Telic aspect on the change of state resulting from the process.

Let us now return to the division of themes by Imperfective type and to the Eventive/non-Eventive distinction, which is probably the most difficult to characterize among the aspectual distinctions. To get at the heart of this distinction, we must take a closer look at the category of Imperfectives.

On formal and semantic grounds, we may distinguish four principal Imperfective types in Tlingit: Stative-type, Progressive, Positional, and Durative (see further 6.1 and 8.6). Stative Imperfectives require the addition of the I-component to the classifier in the Affirmative Realis form. With the important exceptions of the (I)g-Imperfective and the Conative Imperfective, which likewise require the I-component but is classified as Durative on semantic grounds, the other three Imperfective types never take the I-component.

Among the Stative Imperfectives we may distinguish the Extensional Stative Imperfective and the Multiple-positional Stative Imperfective, both of which require an aspect prefix in addition to the I-component. These may be grouped together under the label Aspectualized-stative Imperfectives. All other Stative Imperfectives will simply be called Stative Imperfectives.

The Progressive Imperfective is distinguished by the fact that it requires an aspectual preverb plus the prefix *na-*, and takes the n-stem. The Positional Imperfective also takes the n-stem (with the exception of a few irregular -Positional Imperfectives), and takes local adjuncts with the Punctual postposition *-d* (see further 7.1.4). All other Imperfectives are Durative Imperfectives.

We may also distinguish Imperfectives as PRIMARY or SECONDARY on formal grounds. Primary Imperfectives provide the Imperfective mode for the primary (underived and epiaspectually unmarked) paradigm. For secondary Imperfectives, there are two possibilities. Secondary Durative Imperfectives and Progressive Imperfectives freely form the basis of secondary (derived or epiaspectually marked) paradigms. Secondary Stative Imperfectives and Positional Imperfectives, on the other hand, are defective; they do not form paradigms at all, occurring only in the Imperfective.

An alternative way of defining these two Imperfective types, one which produces the same classification as the above, is in terms of lexical predictability. Secondary Imperfectives need not be lexically specified because they are (a) predictable from the aspect type of a theme, (b) associated with an aspectual derivational string, or (c) freely form an epiaspectual paradigm. Primary Imperfectives, on the other hand, must be lexically specified.

Aspectualized-stative Imperfectives--i.e. Extensional Stative Imperfectives and Multiple-positional Stative Imperfectives--are here considered secondary Imperfectives because they (a) do not form paradigms, (b) are lexically predictable, and (c) are associated with aspectual derivational strings. Extensional Stative Imperfectives exist for all Motion themes that denote the motion of a mass or group, and corresponding Multiple-positional Stative Imperfectives similarly exist for all Positional Imperfectives that denote the physical configuration of a mass or group. All other Stative Imperfectives are primary.

Durative Imperfectives are likewise divisible into primary and secondary subtypes. Primary Durative Imperfectives are here called PROCESSIVE Imperfectives; these can denote an ongoing continuous situation--although they can always refer to habitual situations as well as continuous situations. Secondary Durative Imperfectives are here called ITERATIVE-TYPE Imperfectives; their meaning necessarily involves habituality, iterativity, conativity, or multiple objects. Several subtypes may be distinguished: ITERATIVE IMPERFECTIVES, which refer to repeated processes and events; MULTIPLE-ITERATIVE IMPERFECTIVES, where multiple objects undergo a process or event non-simultaneously; and CONATIVE IMPERFECTIVES, which denote repeatedly attempted processes and events. Moreover, Iterative and Multiple-iterative Imperfectives freely form epiaspectual paradigms.

All Positional Imperfectives and Progressive Imperfectives are secondary. Positional Imperfectives are considered secondary because they (a) do not form paradigms, and (b) are associated with an aspectual derivational string (see 7.2.4). Progressive Imperfectives form epiaspectual paradigms. Thus we arrive at the following classification of Imperfective types seen in Figure 41.

The Eventive/non-Eventive distinction for non-Motion themes rests in whether the theme has a primary Imperfective. Themes that have a primary Imperfective are non-Eventive themes: Stative, Positional, or Processive. Themes that lack primary Imperfectives are Eventive themes.

Imperfective type	**Primary/Secondary**
STATIVE: I-component (in Affirmative Realis)	
Stative: no aspectual prefix	Primary
Aspectualized-stative: aspectual prefix	Secondary
Extensional: denotes extension	
Multiple-positional: involves multiple entities	
POSITIONAL: n-stem; Punctual local argument	Secondary
PROGRESSIVE: aspectual proclitic, *na*-, n-stem	Secondary
DURATIVE: other	
Processive: may denote continuous activity	Primary
Iterative-type: denotes discontinuous activity	Secondary
Iterative: involves multiple occurrences	
Multiple-iterative: involves multiple entities	
Conative: involves multiple attempts	

Figure 41. Imperfective types

Compare, for example, the Imperfectives that occur with the following pair of themes:

(1a) Theme *O-S-∅-x̣a*•· (∅: '-Process.) 'S eats O'

(1b) *x̣ax̣á* 'I am eating it; I (generally) eat it'

(1c) *x̣ax̣é·x̣* 'I keep eating it; I am (repeatedly) eating at it; I am eating at it (i.e. repeatedly undertaking the act of eating it); I eat it (habitually)'

(2a) Thème *O-S-s-ku*•ʻ (∅: Event.) 'S knows, realizes O'

(2b) *x̣asak*^{w}*eʼx̣* 'I (regularly) realize/know it/him/her'

(2c) *x̣asak*^{w}*eł'* 'I know (each of) them (discrete multiple objects or people)'

In example (1), (1b) is a primary Durative (Processive) Imperfective, and (1c) is a secondary Durative (Iterative-type) Imperfective. Since this theme has a Processive Imperfective, it is a Processive theme. In example (2), on the other hand, both (2b) and (2c) are secondary Durative (Iterative-type) Imperfectives; the theme lacks a primary Durative (Processive) Imperfective and is thus an Eventive theme.

The following distributional statements hold for primary and secondary Imperfectives:

(3) A theme or base may or may not have a primary Imperfective; some themes may have more than one primary Imperfective.[1]

(4) A theme or base almost always has at least one secondary Imperfective. (The exceptions here are verbs with primary Imperfectives of the

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[1] In cases where themes have two or more alternative Processive Imperfectives, these always seem to be homonymous (that is, speakers claim that there is no difference in meaning). Moreover, a given speaker generally prefers one or the other, so these may for the most part be considered dialectal or idiolectal variants.

yu'#(I)g-Processive and x̧-Processive types, which are identical in form with the secondary Imperfective.)

The choice of primary Imperfective(s) for a given theme cannot be predicted from the thematic aspectual category, and is in many cases completely unpredictable and thus purely lexical. Insofar as the choice of primary Imperfective is predictable at all, it has mainly to do with the internal kinetic configuration of the situation: whether the action is cyclic, i.e. composed of a chain of repeated actions that are cognitively identical; and if so, the kinetic shape of these actions, e.g. whether instantaneous or prolonged. Figure 42 provides a summary of the distributional characteristics and semantic nature of each primary Imperfective type, together with the English glosses of exemplary themes taking this Imperfective type.

Note that the (I)g-Processive Imperfective is anomalous in several respects. First, it is the only Processive Imperfective that requires the classifier with I-component; otherwise, only Stative Imperfectives do so. Second, outside a couple themes with the plain (I)g-Processive Imperfective, it occurs only with the preverb *yu'#*, and the preverb *yu'#* occurs only with this Imperfective. Third, with the few themes that take this as their primary Imperfective (like 'talk' exemplified below), it doubles as secondary Imperfective; no other Imperfectives are allowed with these verbs.

The choice of Iterative Imperfective that a non-Motion theme can take correlates with the aspectual category of the theme, as shown in Figure 43. All non-Motion themes with a given lexical aspect can take the Iterative Imperfective

Figure 42. Primary Imperfective types

Stative

ÿ-Stative: the default Stative type; denotes a state

·-Stative: used for comparatives; denotes possession; may denote perception and cognition: owning, wearing, seeing, opining

‘-Stative: may denote perception and cognition: feeling, smelling, believing

Positional

n-Positional: the default Positional type; denotes a posture or physical configuration: standing, lying, facing (a certain direction), holding down with the hand or foot

·-Positional: irregular Positional type, represented by only a few themes: sitting

’-Positional: irregular Positional type, represented by only one theme: sleeping

Processive

·-Processive: denotes action leading to product or oral activity: making, cutting (creating product), roasting, inflating, chewing, spitting, licking, telling, whistling, weeping, selling.

’-Processive: occurs only with a few themes, most denoting oral activity: eating, drinking, saying, weeping, working

‘-Processive: denotes action viewed as process, especially involving physical manipulation: binding, rolling up, mashing, wringing, rubbing, peeling, shaving, scratching, pushing with stick, hunting, gathering, fighting, playing, dancing, telling story, laughing, asking, etc.

x̣-Processive: denotes action leading to transformation from one state to another (this is the default Imperfective for causatives): boiling, steaming, soaking, freezing, thawing, removing contents, shaping, growing, etc. (see also below)

g-Processive: denotes series of actions involving repeated contact with a back-and-forth motion: stroking, sweeping, wiping

(I)g-Processive: denotes series of back-and-forth actions; occurs only with a few themes: breathing, blinking

yu‘#(I)g-Processive: (see below)

ǯ-Processive: occurs only with a few themes: pl. falling, shouting

ǯ-Processive with directional preverb: (see below)

d-Processive: denotes series of discrete actions involving repeated contact which is instantantaneous and usually violent: hitting, shooting, poking, cutting to pieces

s'-Processive: denotes series of actions involving repeated contact with cumulative result: sewing, rubbing, feeling, shaking, knocking, encouraging, advising

ł'-Processive: occurs only with one theme: grinding

x'-Processive: denotes action involving the movement or transformation of discrete multiple entities

t'-Processive: denotes action leading to destruction of discrete multiple entities: burning, dying characteristic of that aspect. In addition, however, a few na-aspect themes take other Iteratives as well; an example is (10) below.

Aspect	**Iterative Imperfective type**
∅	x̣-Iterative
na	yu‘#(I)g-Iterative
ɢa	ye‘#ǯ-Iterative
ga	ke‘#ǯ-Iterative

Figure 43. Iterative Imperfective types for non-Motion themes

All non-Motion themes therefore have at least one Iterative Imperfective, but not all have primary Imperfectives.[2] Non-Motion themes that lack primary Imperfectives are Eventive themes; those that have them are either Stative or Processive themes. Following are examples of each type.

STATIVE THEME

(5) Theme *qu-∅-k’é·* (ga: ÿ-Stat.) ‘the weather is good’

Perfective: *qu‘wak’é·* ‘the weather was/turned good’

Primary Imperfective: *quwak’é·* ‘the weather is good’

Iterative Imperfective: *ke‘#quk’é·ǯ* ‘the weather (always) turns good’

PROCESSIVE THEMES

(6) Theme *O-S-∅-x̣a*·* (∅: ’-Process.) ‘S eats O’

Perfective: *x̣ʷa‘x̣á·* ‘I ate it’

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[2] For ∅-aspect themes with x̣-Processive or yu‘#(I)g-Processive primary Imperfective, the primary Imperfective is formally identical with the Iterative Imperfective.

Primary Imperfective: *x̣ax̣á* ‘I am eating it; I (generally) eat it’

Iterative Imperfective: *x̣ax̣é·x̣* ‘I eat it (repeatedly); I am (repeatedly) eating at it; I am trying to eat it’

(7) Theme *O-ka-S-∅-nig** (na: ·-Process.) ‘S tells O’

Perfective: *kax̣ʷa‘ni‘g* ‘I told it’

Primary Imperfective: *kax̣ani·g* ‘I am telling it; I (generally) tell it’

Iterative Imperfective: *yu‘#gx̣a‘nigg* ‘I tell it (repeatedly); I keep telling it; I am trying to tell it’

(8) Theme *O-ka-S-∅-čixʷ*/čux** (0: ‘/s’-Process.) ‘S kneads, massages, shapes O with the hands’

Perfective: *kax̣ʷa‘čixʷ* ‘I kneaded it’

Primary Imperfective: *kax̣ači‘xʷ* or *kax̣ačixʷs’* ‘I am kneading it’

Iterative Imperfective: *kax̣ačixʷx̣* ‘I knead it (repeatedly); I keep kneading it’

(9) Theme *yu‘#x̣’e-S-tan** (0: (I)g-Process.) ‘S speaks, talks’

Perfective: *yu‘#x̣’ax̣ʷa‘tán* ‘I spoke’

Primary Imperfective: (= Iter. Impf.) *yu‘#x̣’ax̣a‘táng* ‘I am speaking; I (generally) speak; I (regularly) speak’

POSITIONAL THEME

(10) Theme *S-∅-ta**‘(na: ’-Pos.) ‘S sleeps’

Perfective: *x̣ʷa‘ta‘* ‘I slept’

Primary Imperfective: *x̣atá* ‘I am sleeping; I (generally) sleep’

Iterative Imperfective: *x̣ate‘x̣* ‘I sleep (repeatedly); I am trying to sleep’ (as in *ʔá’ x̣ate‘x̣* ‘I sleep there’ (= ‘that is where I sleep’))

Iterative Imperfective: *yu‘#x̣a‘te‘g* ‘I sleep (repeatedly)’[3]

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[3] I am not sure of the semantic difference between these two Iterative Imperfectives.

EVENTIVE THEMES

(11) Theme *O-S-∅-ʒa*ɢ* (0: Event.) ‘S kills O’

Perfective: *x̣ʷa‘ʒá*ɢ ‘I killed it’

Iterative Imperfective: *x̣aʒá*ɢ*x̣* ‘I kill it (repeatedly); I keep killing it; I am trying to kill it’

(12) Theme *O-S-∅-ˀun*’* (0: Event.) ‘S shoots O’

Perfective: *x̣ʷaˀún* ‘I shot it’

Iterative Imperfective: *x̣aˀúnx̣* ‘I (often) shoot it), etc.’

Iterative Imperfective: *x̣aˀúnd* ‘I am shooting at it; I am taking shots at it’

(13) Theme *O-S-∅-t’i‘* (ga: Event.) ‘S finds O’

Perfective: *x̣ʷa‘t’i‘* ‘I found it’

Iterative Imperfective: *ke‘#x̣at’i‘ʒ* ‘I (often) find it; I keep finding it’

Multiple-iterative Imperfective: *x̣at’i’dx’* ‘I am finding them (discrete multiple)’

(14) Theme *O-d-xʷeλ*’* (0: Event.) ‘S becomes tired’

Perfective: *x̣ad-wudixʷéλ* ‘I am tired; I have become tired; I became tired’

Iterative Imperfective: *x̣ad-daxʷéλx̣* ‘I (often) become tired; I keep becoming tired’

(15) Theme *O-∅-na*·* (na: Event.) ‘O dies’

Perfective: *wu‘na‘* ‘he is dead; he (has) died’

Iterative Imperfective: *yu‘#ÿaná·gʷ* ‘he keeps dying (but reviving again)’

Multiple-iterative Imperfective: *has#ná·t’* ‘they (discrete multiple) are dying off’

(16) Theme *O-S-s-ku*‘* (0: Invol. Event.) ‘S knows, realizes O’

Perfective: *x̣ʷasikú·* ‘I know/knew it; I (have) realized it’

Iterative Imperfective: *x̣asakʷe‘x̣* ‘I (regularly) realize/know it’

Multiple-iterative Imperfective: *x̣asakʷe‘t’* ‘I know each of them (discrete multiple)’

(17) Theme *O-S-s-tin** (ɢa: Invol. Event.) ‘S sees, catches sight of O’

Perfective: *x̣ʷasiti‘n* ‘I see/saw it; I (have) caught sight of it’

Iterative Imperfective: *ye‘#x̣satín ʒ* ‘I (often) catch sight of it; I keep catching sight of it’

Eventive themes are divisible into two subtypes. Those where the Perfective form of the verb denotes a past situation are called NON-INVOLUNTARY EVENTIVE themes; examples are (11)-(13). Those where the Perfective form may denote a state resulting from a past situation are called INVOLUNTARY EVENTIVE themes; examples are (14)-(17).

With one important exception, Motion themes lack primary Imperfectives. Themes denoting the movement of a mass or group, however, regularly take Extensional Statives, which portray the motion as static. The moving entity, by virtue of being a mass or group, can be configured so that it is perceived as statically extending rather than actively moving, e.g. water flowing, a trail leading somewhere, or a line of people entering a house. Such themes will not be considered to constitute a separate aspect category, but it will be noted that they take Extensional Statives.

The choice of Iterative Imperfective for Motion bases, and in general for bases containing a aspectual derivational string depends on the aspectual category of the derivational string. For Atelic (non-∅-aspect) bases, the choice of iterative is the same as that of Atelic non-Motion themes (see Figure 42), but for Telic (∅-aspect) bases, there are several possibilities, as seen in Figure 43.

In connection with the important aspectual derivational string *PO-d* (∅) 'arriving at PO', note that the postposition *-d* is replaced by *-de'* in the Progressive epiaspect (as well as the Future mode) and *-x̣* in the Iterative Imperfective epiaspect. These substitutions also occur in proclitics historically derived from PPs composed of a directional NP plus the postposition *-d*. These proclitics are listed in 4.1.7, Figure 21, and illustrated in 7.2.1.1.1-2.

‘-Iterative, together with substitution of the postposition *-x̣* for *-d*, for the Telic derivational string *PO-d#* (∅) ‘arriving at PO’ and its derivatives, including the following proclitics historically derived from PPs:

ÿan# (∅) ‘ashore’, ‘onto ground’, ‘to rest’

(with substitution of *yax̣#* for *ÿan#*)

ne‘ł# (∅) ‘inside, into house’, ‘home’

(with substitution of *ne‘łx̣#* for *ne‘ł#*);

ha‘d# (∅) ‘hither, toward the speaker’

(with substitution of *ha‘x̣#* for *ha‘d#*);

ǯ-Iterative for Telic derivational strings containing a directional proclitic of order +8d or the proclitic *qux̣#* ‘(returning) back’

ÿa‘#ǯ-Iterative for Telic derivational strings containing the prefix combination *ÿa-u-*: this combination is replaced by the proclitic *ÿa‘#* in the Iterative paradigm only.

x̣-Iterative elsewhere.

Figure 43. Iterative Imperfective types for Motion bases

The remainder of this chapter will be devoted to exemplification of the theme types. For this purpose we will use pruned paradigms that illustrate the most important facets of conjugation: aspectual marking and stem variation. All noncomposite modes except for the Realizational are given, as well as the Imperfective Habitual (with auxiliary *#nu‘ǯ*). Irrealis forms are also given for the Imperfective, Perfective, and Future modes in order to show verb stem variation. The Durative and Progressive Imperfectives are also given. Processive themes referring to processes and protracted events have Terminative derivatives (with *ÿan#*) and Inceptive derivatives (with *ɢuné’#*), both of which are Telic; see 6.6. For such themes, the Perfective and Progressive Imperfective of the Terminative derivative is given.

7.1. Non-Motion themes.

7.1.1. Stative themes

Stative themes are distinguished by the fact that they take Stative Imperfectives. Another unifying characteristic of Stative themes is that the logical subject of a single-argument theme is morphologically expressed with an order +6 object pronominal unless there is a thematized object pronominal (*ʔa-* or *qu-*) occupying this position; in this case, the occurrence of the thematized object pronominal precludes inflection by object pronominal; rather, the logical subject is morphologically expressed with an order +2 subject pronominal. Aside from these cases, then, all Stative themes are either objective or transitive.

For purposes of exposition, we will divide Stative themes into two subgroups: Descriptive themes and Cognitive themes. Descriptive Stative themes denote existence, location, or possession of some attribute, such as ‘to be’ or ‘to be thus’; these are almost without exception objective themes. Cognitive Stative themes are verbs of cognition, perception, or attitude; these are all either transitive themes or intransitive themes with thematized object pronouns.

7.1.1.1. Descriptive Stative themes

Very few Stative themes take ∅-aspect. (18) is related to themes denoting hanging: *(PO-de‘) O-∅-xad*'*(∅: ÿ-Stat.) ‘single O is hanging (on PO), fastened (to PO)’ and its suppletive plural *(PO-de‘) O-∅+D-x*^{w}*as'**(∅: ÿ-Stat.) ‘plural O are hanging (on PO), fastened (to PO)’.[4]

(18) Theme *MANNER O-ka-∅-xad*'* (∅: ÿ-Stat.) ‘O is/becomes (so) shaped’

Perfective: *yé'#ka‘waxá'd* ‘it became so shaped’

 Irrealis: *yé'#kawuxá'd*

Future: *yé'#kag*^{w}*ɢaxá'd* ‘it will be(come) so shaped’

 Irrealis: *yé'#kag*^{w}*ɢaxá'd*

Potential: *yé'#ku‘ɢa‘xá'd* ~ *yé'#ku‘ɢa‘xád* ‘it may be(come) so shaped’

Occasional: *yé'#ku‘xá'dʒ* ~ *yé'#ku‘xádʒ* ‘it always is/becomes so shaped’

Imperative: ?*yé'#ʔi-kaxád* ‘be so shaped!’

Hortative: *yé'#gɢaxá'd* ~ *yé'#gɢaxád* ‘let it be so shaped’

Admonitive: *yé'#cé ku‘xá'd* ‘see that it isn't so shaped!’

Consecutive: *yé'#kaxá'd* ‘when/after it was/became so shaped’

Conditional: *yé'#kaxádni‘* ‘when/if it is/becomes so shaped’

Contingent: *yé'#gɢaxádín* ‘whenever it is/becomes so shaped’

Primary Imperfective: *yé'#ka‘xád* ‘it is so shaped’

 Irrealis: *yé'#ku‘xád*

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[4] Theme (1) similarly has a suppletive plural *yé'#O-ka-∅+D-x*^{w}*as'**.

Impf. Occasional: *yé'#kaxad#nu‘ʒ* ‘it is always so shaped’

Iterative Imperfective: *yé'#kaxádx̣* ‘it is so shaped (repeatedly)’

Progressive Imperfective: *yé'#ÿa‘#kanaxád* ‘it is becoming so shaped’

Most na-aspect Non-eventive Stative themes are Dimensional descriptive themes, to be discussed in 7.1.2.2. The following theme is the pro-verb for descriptive themes.

(19) Theme *MANNER O-∅-ti*‘* (na: ÿ-Stat. with irregular Realis Assertive stem *-ti‘*) ‘O is (so)’

Perfective: *yé'#wu‘ti‘* ‘it became so’

Irrealis: *yé'#wuti‘*

Future: *yé'#g^{w}Gat́i·* ‘it will be(come) so’

Irrealis: *yé'#g^{w}Gati‘*

Potential: *yé'#ʔunGa‘ti‘* ‘it may be(come) so’

Occasional: *yé'#nati‘ʒ* ‘it always is/becomes so’

Imperative: *yé'#ʔi-nat́i* ‘be so!’

Hortative: *yé'#nGati‘* ‘let it be so’

Admonitive: *yé'#cé ʔunat́i·* ‘see that it isn't so!’

Consecutive: *yé'#nat́i·* ‘when/after it was/became so’

Conditional: *yé'#nat́i·ni‘* ‘when/if it is/becomes so’

Contingent: *yé'#nGat́i·nín* ‘whenever it is/becomes so’

Primary Imperfective: *yé'#ÿati‘* ‘it is so’

Irrealis: *yé'#ʔut́i*

Impf. Occasional: *yé'#t́i·#nu‘ʒ* ‘it is always so’

Iterative Imperfective: *yé'#ti‘x̣* ‘it is so (repeatedly)’

Multiple-iterative Imperfective: *yé'#t́ux̣x^w* ‘they are so (repeatedly)’

Progressive Imperfective: *yé'#ÿa‘#nat́i·n* ‘it is becoming so’

(20) Theme *qu-∅-k’e*‘* (ɢa: ÿ-Stat.) ‘the weather is good’

Perfective: *qu‘wak’e‘* ‘the weather became good’

Irrealis: *quwuk’e‘*

Future: *ye‘#qugʷɢak’é·* ‘the weather will be(come) good’

Irrealis: *ye‘#qugʷɢak’e‘*

Potential: *qu‘ɢa‘ɢa‘k’e‘* ‘the weather may be(come) good’

Occasional: *quɢak’e‘ǯ* ‘the weather always is/becomes good’

Imperative: (lacking)

Hortative: *quɢa‘ɢak’e‘* ‘let the weather be good’

Admonitive: *qu‘ɢak’é·#cé* ‘see that the weather isn’t good!’

Consecutive: *quɢak’é·* ‘when/after the weather was/became good’

Conditional: *quɢak’é·ni‘* ‘when/if the weather is/becomes good’

Contingent: *quɢa‘ɢak’é·nín* ‘whenever the weather is/becomes good’

Primary Imperfective: *quwak’é·* ‘the weather is good’

Irrealis: *qu‘ké*

Impf. Occasional: *quk’é·#nu‘ǯ* ‘the weather is always good’

Iterative Imperfective: *ye‘#quk’e‘ǯ* ‘the weather becomes good (repeatedly)’

Progressive Imperfective: *ye‘#qunak’é·n* ‘the weather is becoming good’

Most Stative themes take ga-aspect. Such themes always have invariable roots, and conversely, Stative themes with invariable roots always take ga-aspect. There is, however, an interesting partial exception to the invariability of one type of root. Many open roots of the shape *-CV́·* are invariable except in the Stative Imperfective, where they act like variable roots (*-CV**) with ÿ-Stative Imperfectives; that is, they have the ÿ-stem (*-CV́·*) in the Assertive Realis but the ’-stem (*-CV́*) in the Non-assertive/ Irrealis.[5] This type is illustrated by theme (4) below. The fact that this root is variable by origin is confirmed by comparison with theme (3) above, a derivative of (4) that takes ɢa-aspect like other themes referring to the weather clearing up (e.g. *ʔa-∅+D-gan**(ɢa: Event. Stat.) ‘the sun shines’); in (3), the root is completely variable.[6]

(21) Theme *O-∅-k’é·* (ga: ÿ-Stat.) ‘O is good’

Perfective: *wu‘k’é·* ‘it became good’

Irrealis: *wuk’é·*

Future: *ke‘#g*^{w}*ɢak’é·* ‘it will be(come) good’

Irrealis: *ke‘#g*^{w}*ɢak’é·*

Potential: *gu‘ɢa‘k’é·* ‘it may be(come) good’

Occasional: *gak’é·ʒ* ‘it always is/becomes good’

Imperative: *ʔi-gak’é·* ‘be good!’

Hortative: *gaɢak’é·* ‘let it be good’

Admonitive: *gu‘k’é·#cé* ‘see that it isn’t good!’

Consecutive: *gak’é·* ‘when/after it was/became good’

Conditional: *gak’é·ni‘* ‘when/if it is/becomes good’

Contingent: *gaɢak’é·nín* ‘whenever it is/becomes good’

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[5] Historically, the ÿ-stem of the Assertive Realis Imperfective has been generalized throughout the rest of the paradigm, leaving only the Non-assertive/Irrealis Imperfective stem to attest to the fact that these ‘invariable roots’ are actually variable stems, at least from a diachronic point of view.

[6] Themes (3) and (4) both have irregular negative derivatives with the š-classifier: *NEG O-š-k’é·* (ga, ÿ-Stat.) ‘O is/becomes bad’ and *NEG qu-š-k’é·* (ga, ÿ-Stat.) ‘the weather is/becomes bad’. Note that the negative of the weather verb reverts to ga-aspect.

Primary Imperfective: *ÿak’é·* ‘it is good’

Irrealis: *ˀuk’é*

Impf. Occasional: *k’é·#nu‘ʒ* ‘it is always good’

Iterative Imperfective: *ke‘#k’é·ʒ* ‘it becomes good (repeatedly)’

Progressive Imperfective: *ke‘#nak’é·n* ‘it is becoming good’

7.1.1.2. Dimensional Descriptive Stative themes

Dimensional themes are those that denote a quantifiable physical attribute. Most themes usually take na-aspect and have ÿ-Stative Imperfectives, as does (22); but themes with invariable stems take ga-aspect, as illustrated by (25). Dimensional themes have Comparative derivatives formed with the string *MANNER ka/ga-ŭ-* (·-Stat.), exemplified by (23), (24) and (26). As (26) shows, the Comparative has a variable stem even if the basic theme does not.

Postnominal modifiers (see 2.2.4) are regularly formed from the Comparative derivatives of Dimensional themes. These modifiers consist of the Comparative prefixes *ka/ga-ŭ-* plus the (-I) classifier and ’-stem, as seen in (23), (24), and (26).

(1) Theme *O-Ø-ÿát’*• (na: ÿ-Stat.) ‘O is long’[7]

Perfective: *wu‘ÿá’t’* ‘it became long’

Irrealis: *wuÿá’t’*

Future: *guGaÿá·t’* ‘it will be(come) long’

Irrealis: *guGaÿá’t’*

Potential: *ˀunGa‘ÿá’t’* ‘it may be(come) long’

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[7] In dialects with ÿ, this undergoes rounding everywhere after *u*; for other speakers, however, rounding occurs only in the forms spelled here with *w*.

Occasional: *naÿát'ʒ* ‘it always is/becomes long’

Imperative: *ˀi-naÿá't'* ‘be long!’

Hortative: *na*ɢ*aÿá't'* ‘let it be long’

Admonitive: *ˀunaÿá·t'#cé* ‘see that it isn't long!’

Consecutive: *naÿá·t'* ‘when/after it was/became long’

Conditional: *naÿát'ni‘* ‘when/if it is/becomes long’

Contingent: *na*ɢ*aÿát″in* ‘whenever it is/becomes long’

Primary Imperfective: *ÿaÿát'* ‘it is long’

Irrealis: *ˀuÿát'*

Impf. Occasional: *ÿát'#nu‘ʒ* ‘it is always long’

Iterative Imperfective: *ÿát'x̣* ‘it becomes long (repeatedly)’

Progressive Imperfective: *ÿa‘#naÿát'* ‘it is becoming long’

(2) Comparative *MANNER O-ka-ū-∅-ÿat'** (na: ·-Stat.) ‘O is (so) long’

Perfective: *yé'#ka‘waÿá't'* ‘it became (so) long’

Irrealis: *yé'#kawuÿá't'*

Future: *yé'#kag*^{w}ɢ*aÿá·t'* ‘it will be(come) (so) long’

Irrealis: *yé'#kag*^{w}ɢ*aÿá't'*

Potential: *yé'#ku‘n*ɢ*a‘ÿá't'* ‘it may be(come) (so) long’

Occasional: *yé'#kunaÿát'ʒ* ‘it always is/becomes (so) long’

Imperative: *yé'#ˀi-kunaÿá't'* ‘be (so) long!’

Hortative: *yé'#kun*ɢ*aÿá't'* ‘let it be (so) long’

Admonitive: *yé'#cé ku‘naÿá·t'* ‘see that it isn't (so) long!’

Consecutive: *yé'#kunaÿá·t'* ‘when/after it was/became (so) long’

Conditional: *yé'#kunaÿát'ni‘* ‘when/if it is/becomes (so) long’

Contingent: *yé'#kun*ɢ*aÿát″in* ‘whenever it is/becomes (so) long’

Primary Imperfective: *yé'#ku'wá·t'* 'it is (so) long'

Irrealis: *yé'#ku'wá't'*

Impf. Occasional: *yé'#kuwat'#nu'ǯ* 'it is always (so) long'

Iterative Imperfective: *yé'#kuwát'x̣* 'it is (so) long (repeatedly)'

Progressive Imperfective: *yé'#ÿa'#kunaÿát'* 'it is becoming (so) long'

Postnominal modifier *N kuwá't'* 'long N'

Dimensional themes usually come in antonymic pairs. If so, the privative member of the opposed pair occurs only in the Comparative form, which assumes the semantic functions of both the plain and Comparative forms of the corresponding non-privative member.[8] Thus, for example, (24) corresponds semantically to both (22) and (23) above.

(24) *MANNER O-ga-ū-Ø-ÿaƛ'** (na: ·-Stat.) 'O is (so) short'

Perfective: *yé'#ga'waÿá'ƛ'* 'it became (so) short'

Irrealis: *yé'#gawuÿá'ƛ'*

Future: *yé'#gagʷɢaÿá·ƛ'* 'it will be(come) (so) short'

Irrealis: *yé'#gagʷɢaÿá'ƛ'*

Potential: *yé'#gu'nɢaʕyá'ƛ'* 'it may be(come) (so) short'

Occasional: *yé'#gunaÿáƛ'ǯ* 'it always is/becomes (so) short'

Imperative: *yé'#ʔi-gunaÿá'ƛ'* 'be (so) short!'

Hortative: *yé'#gunɢaÿá'ƛ'* 'let it be (so) short'

Admonitive: *yé'#cé gu'naÿá·ƛ'* 'see that it isn't (so) short!'

Consecutive: *yé'#gunaÿá·ƛ'* 'when/after it was/became (so) short'

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[8] Even with non-privative themes, the Comparative may be used where no comparison is being made. Thus, for example, *yé'#ku'wá·t'* may mean either 'it is so long' or just 'it is long', like *ÿaÿát'*.

Conditional: *yé'#gunaÿáƛ'ni'* 'when/if it is/becomes (so) short'

Contingent: *yé'#gunGaÿáƛ'in* 'whenever it is/becomes (so) short'

Primary Imperfective: *yé'#gu'wá·ƛ'* 'it is (so) short'

  Irrealis: *yé'#gu'wá'ƛ'*

  Impf. Occasional: *yé'#guwaƛ'#nu'ǯ* 'it is always (so) short'

Iterative Imperfective: *yé'#guwáƛ'x̣* 'it is (so) short (repeatedly)'

Progressive Imperfective: *yé'#ÿa'#gunaÿáƛ'* 'it is becoming (so) short'

Postnominal modifier *N guwá'ƛ'* 'short N'

(25) Theme *O-s-ka'g* (ga: root-Stat.) 'O is thick'

Perfective: *wusika'g* 'it became thick'

  Irrealis: *wuska'g*

Future: *ke'#gux̣saka'g* 'it will be(come) thick'

  Irrealis: *ke'#gux̣saka'g*

Potential: *gu'x̣sika'g* 'it may be(come) thick'

Occasional: *gasaka'gǯ* 'it always is/becomes thick'

Imperative: *ʔi-gsaka'g* 'be thick!'

Hortative: *gax̣saka'g* 'let it be thick'

Admonitive: *gu'ska'g#cé* 'see that it isn't thick!'

Consecutive: *gasaka'g* 'when/after it was/became thick'

Conditional: *gasaka'gni·* 'when/if it is/becomes thick'

Contingent: *gax̣saka'gin* 'whenever it is/becomes thick'

Primary Imperfective: *sika'g* 'it is thick'

  Irrealis: *ʔuska'g*

  Impf. Occasional: *saka'g#nu'ǯ* 'it is always thick'

Iterative Imperfective: *ke'#saka'gx̣* 'it becomes thick (repeatedly)'

Progressive Imperfective: *ke'#naska'g* 'it is becoming thick'

(26) Comparative *MANNER O-ka-ʉ̆-s-kag** (na: ·-Stat.) ‘O is (so) thick’

Perfective: *yé’#kawsika‘g* ‘it became (so) thick’

    Irrealis: *yé’#kawʉska‘g*

Future: *yé’#kagʉx̣saká·g* ‘it will be(come) (so) thick’

    Irrealis: *yé’#kagʉx̣saka‘g*

Potential: *yé’#kʉ‘nax̣sika‘g* ‘it may be(come) (so) thick’

Occasional: *yé’#kʉnaskágʒ* ‘it always is/becomes (so) thick’

Imperative: *yé’#ʔi-kʉnaska‘g* ‘be (so) thick!’

Hortative: *yé’#kʉnax̣saka‘g* ‘let it be (so) thick’

Admonitive: *yé’#cé kʉ‘nasaká·g* ‘see that it isn’t (so) thick!’

Consecutive: *yé’#kʉnaská·g* ‘when/after it was/became (so) thick’

Conditional: *yé’#kʉnaskágni‘* ‘when/if it is/becomes (so) thick’

Contingent: *yé’#kʉnax̣sakágin* ‘whenever it is/becomes (so) thick’

Primary Imperfective: *yé’#gʷsiká·g* ‘it is (so) thick’

    Irrealis: *yé’#kʉ‘ska‘g*

    Impf. Occasional: *yé’#gʷsakag#nu‘ʒ* ‘it is always (so) thick’

Iterative Imperfective: *yé’#gʷsakágx̣* ‘it is (so) thick (repeatedly)’

Progressive Imperfective: *yé’#ÿa‘#kʉnaskág* ‘it is becoming (so) thick’

Postnominal modifier *N kʉsaka‘g* ‘thick N’

Dimensional themes also regularly have Plural derivatives. These are formed with the addition of the +D component of the classifier, and in Non-comparative forms also with the addition of the suffix *-x’*. The addition of *-x’* to a variable root results in an invariable stem, which entails changing the aspect from na- to ga-. The Comparative Plural derivative, on the other hand, retains the stem and aspect of the original theme. The postnominal modifier based on the Plural derivative is variable: closed roots take the x'-stem, but open roots take the '-stem. Compare, for example

(27) Theme *O-∅-y̆át'** (na: y̆-Stat.) 'single O is long'

Comparative *MANNER O-ka-ʉ̆-∅-y̆at'** (na: ·-Stat.) 'single O is (so) long'

Postnominal modifier *N kuwá't'* 'long N'

Plural:

Theme *O-∅+D-y̆at'x'* (ga: root-Stat.) 'plural O are long'

Comparative *MANNER O-ka-ʉ̆-∅+D-y̆at'** (na: ·-Stat.) 'plural O are (so) long'

Postnominal modifier *N kudäy̆át'x'* 'long Ns'

(28) Theme *O-s-ka'g* (ga: root-Stat.) 'single O is thick'

Comparative *MANNER O-ka-ʉ̆-s-kag** (na: ·-Stat.) 'single O is (so) thick'

Postnominal modifier *N kusaka'g* 'thick N'

Plural:

Theme *O-s+D-kágx'* (ga: root-Stat.) 'plural O are thick'

Comparative *MANNER O-ka-ʉ̆-s+D-kag** (na: ·-Stat.) 'plural O are (so) thick'

Postnominal modifier *N kuskágx'* 'thick Ns'

(29) Theme *O-∅-ƛe'** (ga: root-Stat.) 'single O is stout'

Comparative *MANNER O-ka-ʉ̆-∅-ƛa*'* (na: ·-Stat.) 'single O is (so) stout'

Postnominal modifier *N kuƛá* 'stout N'

Plural:

Theme *O-∅+D-ƛe'x*'* (ga: root-Stat.) 'plural O are stout'

Comparative *MANNER O-ka-ʉ̆-∅+D-ƛa*'* (na: ·-Stat.) 'plural O are (so) stout'

Postnominal modifier *N kudaƛá* 'stout Ns'

7.1.1.3. Cognitive Stative themes

The above discussion of Stative themes applies in general to Cognitive as well as to Descriptive Stative themes. Example (1) is an intransitive theme with thematized object pronominal *ʔa-*. This is the only known instance of a dual-aspect theme among Stative themes.

(30) Theme *PO-k' ʔa-S-∅-hin** (∅: ‘-Stat.) ‘S believes PO’

Perfective: *ʔák' ʔax̣ʷaˀhín* ‘I have come to believe it; I believed it’

Irrealis: *ʔák' ʔax̣ʷahiʻn*

Future: *ʔák' ʔagʷqahí·n* ‘I will believe it’

Irrealis: *ʔák' ʔagʷqahiʻn*

Potential: *ʔák' ʔuʻqaˀhiʻn* ~ *ʔák' ʔuʻqaˀhín* ‘I may believe it’

Occasional: *ʔák' ʔuʻx̣ahiʻnʒ̵* ~ *ʔák' ʔuʻx̣ahínʒ̵* ‘I always (come to) believe it’

Imperative: *ʔák' ʔahín* ‘believe it!’

Hortative: *ʔák' ʔaqahiʻn* ~ *ʔák' ʔaqahín* ‘let me believe it’

Admonitive: *ʔák'#cé ʔiˀhí·n* ‘see that you don’t believe it!’

Consecutive: *ʔák' ʔax̣ahí·n* ‘when/after I believed/came to believe it’

Conditional: *ʔák' ʔax̣ahínniʻ* ‘when/if I (come to) believe it’

Contingent: *ʔák' ʔaqahínín* ‘whenever I (come to) believe it’

Durative Paradigm:

Perfective: *ʔák' ʔax̣ʷaˀhiʻn* ‘I believed it’

Irrealis: *ʔák' ʔax̣ʷahiʻn*

Future: *ʔák' ʔagʷqahiʻn* ‘I will believe it’

Irrealis: *ʔák' ʔagʷqahiʻn*

Potential: *ʔák' ʔuʻnqaˀhiʻn* ‘I may believe it’

Occasional: *ˀák’ ˀanx̣ahi‘nǯ* ‘I always (come to) believe it’

Imperative: *ˀák’ ˀanahi‘n* ‘believe it!’

Hortative: *ˀák’ ˀanqahi‘n* ‘let me believe it’

Admonitive: *ˀák’#cé ˀani·hi‘n* ‘see that you don’t believe it!’

Consecutive: *ˀák’ ˀanx̣ahi‘n* ‘when/after I believed/came to believe it’

Conditional: *ˀák’ ˀanx̣ahi‘nni·* ‘when/if I (come to) believe it’

Contingent: *ˀák’ ˀanqahi‘nín* ‘whenever I (come to) believe it’

Primary Imperfective: *ˀák’ ˀax̣aˀhi‘n* ‘I believe it’

Irrealis: *ˀák’ ˀu‘x̣ahi‘n*

Impf. Occasional: *ˀák’ ˀax̣ahin#nu‘ǯ* ‘I always believe it’

Iterative Imperfective: *ˀák’ ˀax̣ahínx̣* ‘I come to believe it (repeatedly); I keep believing it’

Progressive Imperfective: *ˀák’ ȳa‘#ˀanx̣ahín* ‘I am coming to believe it’

(31) Theme *yé’#O-u-S-∅-ǯi*‘* (na: ȳ-Stat.) ‘S thinks so of O, considers O so’

Perfective: *yé’#x̣ʷa‘ǯi‘* ‘I have come to think so; I thought so’

Irrealis: *yé’#x̣ʷaǯi‘*

Future: *yé’#gʷqaǯi·* ‘I will think so’

Irrealis: *yé’#gʷqaǯi‘*

Potential: *yé’#ˀunqa‘ǯi‘* ‘I may think so’

Occasional: *yé’#ˀunx̣aǯi‘ǯ* ‘I always (come to) think so’

Imperative: *yé’#ˀunaǯi ~ yé’#naǯi* ‘think so!’

Hortative: *yé’#ˀunqaǯi‘ ~ yé’#nqaǯi‘* ‘let me think so’

Admonitive: *yé’#cé ni·ǯi·* ‘see that you don’t think so!’

Consecutive: *yé’#ˀunx̣aǯi· ~ yé’#nx̣aǯi·* ‘when/after I thought/came to think so’

Conditional: *yé’#ˀunx̣aǯi·ni‘ ~ yé’#nx̣aǯi·ni‘* ‘when/if I (come to) think so’

Contingent: *yé’#ˀunqaǯi·nín ~ yé’#nqaǯi·nín* ‘whenever I (come to) think so’

Primary Imperfective: *yé'#x̣ʷa‘ǯi·* ‘I think so’

Irrealis: *yé'#x̣ʷaǯi*

Impf. Occasional: *yé'#x̣ʷaǯi·#nu‘ǯ* ‘I always think so’

Iterative Imperfective: *yé'#yu‘#x̣ʷa‘ǯi‘g ~ yé'#yu‘#x̣ʷa‘ǯi‘g* ‘I come to think so (repeatedly); I keep thinking so’

Progressive Imperfective: *yé'#ÿa‘#ʔunx̣aǯi·n* ‘I am coming to think so’

(32) Theme *yé'#O-se-S-∅-ha*‘* (ɢa: ÿ-Stat. with stem *-he*) ‘S wants O to do so’

Perfective: *yé'#sax̣ʷaˀha‘* ‘I have come to want him/her to do so; I wanted him/her to do so’

Irrealis: *yé'#sax̣ʷaha‘*

Future: *yé'#ye‘#sagʷqahá·* ‘I will want him/her to do so’

Irrealis: *yé'#ye‘#sagʷqaha‘*

Potential: *ye'#se‘qa‘qaˀha‘* ‘I may want him/her to do so’

Occasional: *ye'#saqahe‘ǯ* ‘I always (come to) want him/her to do so’

Imperative: *ye'#saɢahá* ‘want him/her to do so!’

Hortative: *ye'#saqa‘qaha‘* ‘let me want him/her to do so’

Admonitive: *yé'#cé saɢi·há·* ‘see that you don’t want him/her to do so!’

Consecutive: *ye'#saqahá·* ‘when/after I thought/came to want him/her to do so’

Conditional: *ye'#saqahé·ni‘* ‘when/if I (come to) want him/her to do so’

Contingent: *ye'#saqa‘qahé·nín* ‘whenever I (come to) want him/her to do so’

Primary Imperfective: *yé'#sax̣aˀhé·* ‘I want him/her to do so’

Irrealis: *yé'#se‘x̣ahé*

Impf. Occasional: *yé'#sax̣ahé·#nu‘ǯ* ‘I always want him/her to do so’

Iterative Imperfective: *yé'#ye‘#sax̣ahe‘ǯ* ‘I come to want him/her to do so (repeatedly); I keep thinking so’

Progressive Imperfective: *yé'#ye‘#sanx̣ahé·n* ‘I am coming to want him/her to do so’

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Themes (33) and (34) are instances of ga-aspect themes with invariable roots. Like (21), the root of theme (34) is only quasi-invariable: it is variable in the Stative Imperfective but invariable elsewhere.

(33) Theme *O-S-s-x̣án* (ga: root-Stat.) ‘S loves O’

Perfective: *x̣ʷasix̣án* ‘I have come to love him/her; I loved him/her’

Irrealis: *x̣ʷasax̣án*

Future: *ke‘#gʷqasax̣án* ‘I will love him/her’

Irrealis: *ke‘#gʷqasax̣án*

Potential: *gu‘qasix̣án* ‘I may love him/her’

Occasional: *gax̣sax̣ánǯ* ‘I always (come to) love him/her’

Imperative: *gasax̣án* ‘love him/her!’

Hortative: *gaqasax̣án* ‘let me love him/her’

Admonitive: *gisax̣án#cé* ‘see that you don't love him/her!’

Consecutive: *gax̣sax̣án* ‘when/after I loved/came to love him/her’

Conditional: *gax̣sax̣ánni‘* ‘when/if I (come to) love him/her’

Contingent: *gaqasax̣ánin* ‘whenever I (come to) love him/her’

Primary Imperfective: *x̣asix̣án* ‘I love him/her’

Irrealis: *x̣ʷasax̣án*

Impf. Occasional: *x̣asax̣an#nu‘ǯ* ‘I always love him/her’

Iterative Imperfective: *ke‘#x̣sax̣ánǯ* ‘I come to love him/her (repeatedly); I keep loving him/her’

Progressive Imperfective: *ke‘#nax̣sax̣án* ‘I am coming to love him/her’

(34) Theme *NO-ÿá’ ʔa-ÿa-u·-S-∅-né·* (ga: ÿ-Stat.) ‘S respects, honors NO’

Perfective: *du-ÿá’ ʔaÿax̣ʷa‘né·* ‘I have come to respect him/her; I respected him/her’

Irrealis: *du-ÿá’ ʔaÿax̣ʷané·*

Future: *du-ÿá' ke‘#ʔaÿag*^{w}*qané·* ‘I will respect him/her’

Irrealis: *du-ÿá' ke‘#ʔaÿag*^{w}*qané·*

Potential: *du-ÿá' ʔaÿag*^{w}*qa‘né·* ‘I may respect him/her’

Occasional: *du-ÿá' ʔaÿagx̣ané·ʒ* ‘I always (come to) respect him/her’

Imperative: *du-ÿá' ʔaÿagané·* ‘respect him/her!’

Hortative: *du-ÿá' ʔaÿagqané·* ‘let me respect him/her’

Admonitive: *du-ÿá'#cé ʔaÿagi·né·* ‘see that you don't respect him/her!’

Consecutive: *du-ÿá' ʔaÿagx̣ané·* ‘when/after I respected/came to respect him/her’

Conditional: *du-ÿá' ʔaÿagx̣ané·ni‘* ‘when/if I (come to) respect him/her’

Contingent: *du-ÿá' ʔaÿagqané·nín* ‘whenever I (come to) respect him/her’

Primary Imperfective: *du-ÿá' ʔawux̣a‘né·* ‘I respect him/her’

Irrealis: *du-ÿá' ʔawu‘x̣ané*

Impf. Occasional: *du-ÿá' ʔawux̣ané·#nu‘ʒ* ‘I always respect him/her’

Iterative Imperfective: *du-ÿá' ke‘#ʔawux̣ané·ʒ ~ ke‘#ʔaÿax̣ané·ʒ* ‘I come to respect him/her (repeatedly); I keep respecting him/her’

Progressive Imperfective: *du-ÿá' ke‘#ʔawunx̣ané·n ~ ke‘#ʔaÿanx̣ané·n* ‘I am coming to respect him/her’

7.1.2. Processive themes.

7.1.2.1. Telic themes

The following theme behaves just like *O-S-Ø-x̣a*·* (Ø: '-Process.) ‘S eats O’, used above to illustrate all the possible combinations of schetic categories.

(35) Theme *O-ł-Ø+D-na*‘* (Ø: '-Process.) ‘S drinks O’

Perfective: *x̣*^{w}*aaná·* ‘I drank it’

Irrealis *x̣*^{w}*adaná*

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Future: *kuqadaná·* 'I will drink it'

    Irrealis: *kuqadanaʿ*

Potential: *qʷadinaʿ* 'I may drink it'

Perfective Habitual: *x̣ʷadaná·ÿʒ* 'I always drink it'

Imperative: *ʔidaná* 'drink it!'

Hortative: *qadanaʿ* 'let me drink it'

Admonitive: *ʔidaná·#cé* 'see that you don't drink it!'

Consecutive: *x̣adaná·* 'when/after I drank it'

Conditional: *x̣adané·niʿ* 'when/if I drink it'

Contingent: *qadané·nin* 'whenever I drink it'

Primary Imperfective: *x̣adaná* 'I'm drinking it'

    Irrealis: *x̣ʷadaná*

    Impf. Habitual: *x̣adaná·#nuʿʒ* 'I'm always drinking it'

Iterative Imperfective: *x̣adaneʿx̣* 'I drink it (repeatedly); I keep trying to drink it'

Terminative:

Perfective: *ÿan#x̣ʷadiná·* 'I finished drinking it'

Progressive Imperfective: *ÿándeʿ ÿaʿ#nax̣dané·n* 'I'm finishing drinking it'

The following pair of themes illustrates the ·-Processive and s'-Processive types, respectively.

(36) Theme *O-S-ł-yex̣** (∅: ·-Process.) 'S makes O'

Perfective: *x̣ʷałiyéx̣* 'I made it'

    Irrealis: *x̣ʷałayeʿx̣*

Future: *kuqałayé·x̣* 'I will make it'

    Irrealis: *kuqałayeʿx̣*

Potential: *qʷałiyeʿx̣ ~ qʷałiyéx̣* 'I may make it'

Perfective Habitual: *x̣ʷałaye‘x̣ʒ ~ x̣ʷałayéx̣ʒ* ‘I always make it’

Imperative: *łayéx̣* ‘make it!’

Hortative: *qałaye‘x̣ ~ qałayéx̣* ‘let me make it’

Admonitive: *ˀiłayé·x̣#cé* ‘see that you don’t make it!’

Consecutive: *x̣ałayé·x̣* ‘when/after I made it’

Conditional: *x̣ałayéx̣ni‘* ‘when/if I make it’

Contingent: *qałayéx̣ín* ‘whenever I make it’

Primary Imperfective: *x̣ałayé·x̣* ‘I’m making it’

    Irrealis: *x̣ʷałaye‘x̣*

    Impf. Habitual: *x̣ałayex̣#nu‘ʒ* ‘I’m always making it’

Iterative Imperfective: *x̣ałayéx̣x̣* ‘I make it (repeatedly); I keep trying to make it’

Terminative:

Perfective: *ÿan#x̣ʷałiyéx̣* ‘I finished making it’

Progressive Imperfective: *ÿánde‘ ÿa‘#nax̣łayéx̣* ‘I’m finishing making it’

(37) Theme *O-S-∅-qa*·* (0: s’-Process.) ‘S sews O’

Perfective: *x̣ʷa‘qá·* ‘I sewed it’

    Irrealis: *x̣ʷaqá*

Future: *kuqaqá·* ‘I will sew it’

    Irrealis: *kuqaqa‘*

Potential: *qʷa‘qa‘* ‘I may sew it’

Perfective Habitual: *x̣ʷaqá·ÿʒ* ‘I always sew it’

Imperative: *qá* ‘sew it!’

Hortative: *qaqa‘* ‘let me sew it’

Admonitive: *ˀi·qá·#cé* ‘see that you don’t sew it!’

Consecutive: *x̣aqá·* ‘when/after I sewed it’

Conditional: *x̣aqé·ni‘* ‘when/if I sew it’

Contingent: *qaqé·nín* ‘whenever I sew it’

Primary Imperfective: *x̣aqé·s’* ‘I’m sewing it’

Irrealis: *x̣*^{w}*aqé·s’*

Imperfective Habitual: *x̣aqé·s’#nu‘ʒ* ~ *x̣aqes’#nu‘ʒ* ‘I’m always sewing it’

Iterative Imperfective: *x̣aqé·x̣* ‘I sew it (repeatedly); I keep trying to sew it’

Terminative:

Perfective: *ÿan#x̣*^{w}*a‘qá·* ‘I finished sewing it’

Progressive Imperfective: *ÿánde‘ ÿa‘#nx̣aqé·n* ‘I’m finishing sewing it’

7.1.2.2. Telic themes with ∅(-ȳ)-aspect

The following theme exemplifies the Ø(-ÿ)-aspect verbs, a subset of Ø-aspect verbs with open roots where the ÿ-stem is used in the Potential, Imperative, and Hortative modes of the primary paradigm (see further 6.1).[9]

(38) Theme *O-ka-S-∅-ha*·* (Ø·: x̣-Process.) ‘S digs O’

Perfective: *kax̣*^{w}*a‘há·* ‘I dug it’

Irrealis: *kax̣*^{w}*ahá*

Future: *kag*^{w}*qahá·* ‘I will dig it’

Irrealis: *kag*^{w}*qaha‘*

Potential: *ku‘qa‘há·* ‘I may dig it’

Perfective Habitual: *ku‘x̣ahá·ÿʒ* ‘I always dig it’

Imperative: *kahá·* ‘dig it!’

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[9] Such themes are *PO-x’ O-ka-∅-ha*·*‘S is located at PO’, *O-ka-S-∅-ha*·*‘S digs O’, *O-S-∅-wu*·*‘S sends for O’; *S-∅+D-wu*·*‘S takes traveling provisions, lunch’, *O-S-s-na*‘* ‘S sun-dries O’, *O-S-ł-ƛ’a*‘* ‘S sucks O’, *O-S-∅-ša*·* ‘S marries O’, *O-šu-ka-S-∅-ǯa*‘* ‘S advises O’, *O-S-∅-x’a*‘*‘S twists O (flexible part of tree) to limber it’, *S-∅+D-x’u*·*‘S wears O (blanket)’, *O-S-∅-ku*‘*‘S comes to know O’, *O-S-∅-x̣a*·*‘S paddles O.

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Hortative: *kaqahá·* ‘let me dig it’

Admonitive: *ki‘há·#cé* ‘see that you don’t dig it!’

Consecutive: *kax̣ahá·* ‘when/after I dug it’

Conditional: *kax̣ahé·ni‘* ‘when/if I dig it’

Contingent: *kaqahé·nín* ‘whenever I dig it’

Iterative Imperfective: *kax̣ahé·x̣* ‘I dig it (repeatedly); I keep trying to dig it’

Note, however, that the usual ‘-stem forms are used in secondary (derived or epiaspectually marked) paradigms, e.g. with the derivational string *ke‘#* (0) ‘moving up’:

Imperative: *ke‘#kahá* ‘dig it up!’

Hortative: *ke‘#gqaha‘* ‘let me dig it up’

7.1.2.3. Atelic themes

The following themes illustrate the major categories of Atelic themes: (39) is a na-aspect theme; (40) a ɢa-aspect theme; and (41) a ga-aspect theme.

(39) Theme *O-ka-S-∅-nig** (na: ·-Process.) ‘S tells about O’

Perfective: *kax̣ʷa‘ni‘g* ‘I told about it’

    Irrealis: *kax̣ʷani‘g*

Future: *kagʷqaní·g* ‘I will tell about it’

    Irrealis: *kagʷqani‘g*

Potential: *ku‘nqa‘ni‘g* ‘I may tell about it’

Perfective Habitual: *kanx̣aníg*ʒ ‘I always tell about it’

Imperative: *kanani‘g* ‘tell about it!’

Hortative: *kanqani‘g* ‘let me tell about it’

Admonitive: *kani·ní·g#cé* ‘see that you don’t tell about it!’

Consecutive: *kanx̣ani·g* ‘when/after I told about it’

Conditional: *kanx̣anigni‘* ‘when/if I tell about it’

Contingent: *kanqanigin* ‘whenever I tell about it’

Primary Imperfective: *kax̣ani·g* ‘I'm telling about it’

Irrealis: *ku‘x̣ani‘g*

Impf. Habitual: *kax̣anig#nu‘ʒ* ‘I'm always telling about it’

Iterative Imperfective: *yu‘#gx̣a‘nigg* ‘I tell about it (repeatedly); I keep trying to tell about it’

Terminative:

Perfective: *ÿan#kax̣ʷa‘nig* ‘I finished telling about it’

Progressive Imperfective: *ÿánde‘ ÿa‘#kanx̣anig* ‘I'm finishing telling about it’

(40) Theme *O-S-ɬ-*ɢ*u*·* (ɢa(~ na): g-Process.) ‘S wipes O’

Perfective: *x̣ʷaɬi*ɢ*u‘* ‘I wiped it’

Irrealis: *x̣ʷaɬa*ɢ*u‘*

Future: *ye‘#gʷqaɬa*ɢ*ú·* ‘I will wipe it’

Irrealis: *ye‘#gʷqaɬa*ɢ*u‘*

Potential: *qʷa‘qaɬi*ɢ*u‘* ‘I may wipe it’

Perfective Habitual: *qaɬa*ɢʷ*é·ʒ* ‘I always wipe it’

Imperative: ɢ*aɬ*ɢ*ú* ‘wipe it!’

Hortative: *qa‘qaɬa*ɢ*u‘* ‘let me wipe it’

Admonitive: ɢ*iɬa*ɢ*ú·#cé* ‘see that you don't wipe it!’

Consecutive: *qaɬa*ɢ*ú·* ‘when/after I wiped it’

Conditional: *qaɬa*ɢʷ*é·ni‘* ‘when/if I wipe it’

Contingent: *qa‘qaɬa*ɢʷ*é·nin* ‘whenever I wipe it’

Primary Imperfective: *x̣aɬa*ɢ*é·gʷ* ‘I am wiping it’

Irrealis: *x̣ʷaɬa*ɢ*é·gʷ*

Habitual Imperfective: *x̣aɬa*ɢ*é·gʷ#nu‘ʒ* ‘I am always wiping it’

Iterative Imperfective: *ye‘#x̣ła*ɢʷ*é·ǯ* ‘I wipe it (repeatedly); I keep wiping it’

Progressive Imperfective: *ye‘#nax̣ła*ɢʷ*é·n* ‘I am wiping it down/off’

Terminative:

Perfective: *ÿan#x̣ʷałi*ɢ*ú·* ‘I finished wiping it’

Progressive Imperfective: *ÿánde‘ ye‘#nax̣ła*ɢʷ*é·n* ‘I am finishing wiping it’

Note that some speakers may use either na- or ɢa-aspect for (40) as well as other ɢa-aspect Processive themes such as *O-S-∅-xit’**(ɢa(~na): g-Process.) ‘S sweeps O’. This seems due to the fact that ɢa-aspect occurs with relatively few themes and is semantically idiosyncratic, and so is tending to lose ground to the na-aspect. Theme (40), for example, appears to belong to the ɢa-aspect category because it denotes cleaning or clearing away; yet there are semantically similar themes like *O-S-∅-ʔus’**(na: g-Process.) that occur with na-aspect for all speakers.

(41) Theme *O-S-∅-ši**‘ (ga: ’-Process.) ‘S sings O’

Perfective: *x̣ʷa‘ši‘* ‘I sang it’

  Irrealis: *x̣ʷaši‘*

Future: *ke‘#gʷqaši·* ‘I will sing it’

  Irrealis: *ke‘#gʷqaši‘*

Potential: *gu‘qa‘ši‘* ‘I may sing it’

Perfective Habitual: *gax̣aši‘ǯ* ‘I always sing it’

Imperative: *gaši* ‘sing it!’

Hortative: *gaqaši‘* ‘let me sing it’

Admonitive: *gi·ši·#cé* ‘see that you don’t sing it!’

Consecutive: *gax̣aši·* ‘when/after I sang it’

Conditional: *gax̣aši·ni‘* ‘when/if I sing it’

Contingent: *gaqaši·nin* ‘whenever I sing it’

Primary Imperfective: *x̣ašı* ‘I’m singing it’

Irrealis: *x̣ʷašı*

Impf. Habitual: *x̣ašı·#nu‘ǯ* ‘I’m always singing it’

Iterative Imperfective: *ke‘#x̣aši‘ǯ* ‘I sing it (repeatedly); I keep starting to sing it’

Progressive Imperfective: *ke‘#nx̣ašı·n* ‘I’m beginning to sing it’[10]

Terminative:

Perfective: *ÿan#x̣ʷa‘šı·* ‘I finished singing it’

Progressive Imperfective: *ÿánde‘ ÿa‘#nx̣ašı·n* ‘I’m finishing singing it’

7.1.2.4. Atelic themes with invariant-stem neutral paradigms

There are a fair number of Atelic themes that have an invariant stem throughout their primary (underived and epiaspectually unmarked) paradigm but exhibit stem variation in secondary paradigms, namely aspectually marked derivatives such as the Terminative and in the Progressive, as well as the epiaspectually marked Progressive. Crucial to interpreting this phenomenon is the fact that ALL THESE THEMES AND--AMONG ATELIC THEMES--ONLY THESE THEMES HAVE ‘-PROCESSIVE IMPERFECTIVES. With these themes, the stem of the ‘-Processive Imperfective is generalized throughout the paradigm. Moreover, all these themes take na-aspect.

These na-aspect paradigms characterized by an invariant stem that is generalized from the Imperfective I am inclined to interpret as Durative paradigms, since this combination of invariant stem derived from a variable root and *na-* aspect marker is precisely the hallmark of the Durative epiaspect. To account for these themes, then, we need a rule like the following:

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[10] While apparently possible, this form is rarely used because it is homophonous with the Progressive Imperfective of theme *S-∅-ši*‘* (Motion) ‘S reaches, stretches forth the hand(s)’ with aspectual derivative *ke‘#* (0) ‘(moving) up’ (as are also the Future and Iterative forms).

> (42) Atelic themes with '-Processive Imperfectives use the Durative paradigm formed from this Imperfective in place of the expected epiaspectually unmarked paradigm.

This type of paradigm is illustrated by (43).

(43) Theme *ǯ-ka-S-ł+D-nig** (na: '-Process., invariant stem) 'S tells a/the story'

Perfective: *ǯ-kax̣ʷƛiniʻg* 'I told the story'

    Irrealis: *ǯ-kax̣ʷałniʻg*

Future: *ǯ-kagʷqałniʻg* 'I will tell the story'

    Irrealis: *ǯ-kagʷqałniʻg*

Potential: *ǯ-kuʻnqaƛiniʻg* 'I may tell the story'

Perfective Habitual: *ǯ-kanx̣ałniʻgǯ* 'I always tell the story'

Imperative: *ǯ-kanałniʻg* 'tell the story!'

Hortative: *ǯ-kanqałniʻg* 'let me tell the story'

Admonitive: *ǯ-kani·łniʻg#cé* 'see that you don't tell the story!'

Consecutive: *ǯ-kanx̣ałniʻg* 'when/after I told the story'

Conditional: *ǯ-kanx̣ałniʻgniʻ* 'when/if I tell the story'

Contingent: *ǯ-kanqałniʻgín* 'whenever I tell the story'

Primary Imperfective: *ǯ-kax̣ałniʻg* 'I'm telling the story'

    Irrealis: *ǯ-kuʻx̣ałniʻg*

    Impf. Habitual: *ǯ-kax̣ałnig#nuʻǯ* 'I'm always telling the story'

Terminative:

Perfective: *ÿan#ǯ-kax̣ʷƛinig* 'I finished telling the story'

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Progressive Imperfective: *ÿánde‘ ÿa‘#š-kanx̣ałnig* ‘I'm finishing telling the story’

Note the reduced attributive/proclitic stem form seen in the Imperfective Habitual of both (43) and (44).

In a few cases the invariant stem of the primary paradigm is different from the variable stem seen in aspectually-marked derivatives, and so must be lexically specified. The existence of this irregular stem variation bears witness to the antiquity of this phenomenon, and provides a small window into the past that can be exploited for the purpose of internal reconstruction.

(44) Theme *O-x̣’e-(u-)S-∅-was’** (na: ‘-Process., invariant stem *-wú’s’*) ‘S asks O’

Perfective: *x̣’ax̣ʷa‘wú’s’* ‘I asked him/her’

Irrealis: *x̣’ax̣ʷawú’s’*

Future: *x̣’agʷqawú’s’* ‘I will ask him/her’

Irrealis: *x̣’agʷqawú’s’*

Potential: *x̣’e‘nqa‘wú’s’* ‘I may ask him/her’

Perfective Habitual: *x̣’anx̣awú’s’ǯ* ‘I always ask him/her’

Imperative: *x̣’anawú’s’* ‘ask him/her!’

Hortative: *x̣’anqawú’s’* ‘let me ask him/her’

Admonitive: *x̣’ani·wú’s’#cé* ‘see that you don't ask him/her!’

Consecutive: *x̣’anx̣awú’s’* ‘when/after I asked him/her’

Conditional: *x̣’anx̣awú’s’ni‘* ‘when/if I ask him/her’

Contingent: *x̣’anqawú’s’in* ‘whenever I ask him/her’

Primary Imperfective: *x̣’ax̣awú’s’* ~ *x̣’e‘x̣awú’s’* ‘I'm asking him/her’

Irrealis: *x̣’e‘x̣awú’s’*

Impf. Habitual: *x̣’ax̣awus’#nu‘ǯ* ~ *x̣’e‘x̣awus’#nu‘ǯ* ‘I'm always asking him/her’

Terminative:

Perfective: *ÿan#x̣'ax̣*^{w}*a‘wás'* ‘I finished asking him/her’

Progressive Imperfective: *ÿánde‘ ÿa‘#x̣'anx̣awás'* ‘I'm finishing asking him/her’

Similar cases where stems of the shape *Cu‘C*$^{\circ}$ or *Cú'C'* alternate with variable *C*^{w}*aC** roots are found elsewhere in the lexicon.

In (45), on the other hand, the stem-final sonorant *ÿ* was historically dropped in the invariant stem variant (compare the nominal form *kaÿ* ‘measure, ruler, mile’). One other such example has survived; this is *O-S-ʔuw*'* (0/na: ‘-Process., Atelic paradigm with invariant stem *-ʔu‘*), given below as (50). Similar cases of dropping of *ÿ* are found elsewhere in the lexicon.

(45) *O-S-∅-kaÿ*'* (na: ‘-Processive, invariant stem *-ka‘*) ‘S measures, weighs O’

Perfective: *x̣*^{w}*a‘ka‘* ‘I measured it’

  Irrealis: *x̣*^{w}*aka‘*

Future: *kuqaka‘* ‘I will measure it’

  Irrealis: *kuqaka‘*

Potential: *ʔunqa‘ka‘* ‘I may measure it’

Perfective Habitual: *nax̣ake‘ʒ* ‘I always measure it’

Imperative: *naka‘* ‘measure it!’

Hortative: *naqaka‘* ‘let me measure it’

Admonitive: *ni·ka‘#cé* ‘see that you don't measure it!’

Consecutive: *nax̣aka‘* ‘when/after I measured it’

Conditional: *nax̣ake‘ni·* ‘when/if I measure it’

Contingent: *naqake‘nín* ‘whenever I measure it’

Primary Imperfective: *x̣aka‘* ‘I'm measuring it’

  Irrealis: *x̣*^{w}*aka‘*

  Impf. Habitual: *x̣aka‘#nu‘ʒ* ‘I'm always measuring it’

Terminative:

Perfective: *ÿan#x̣ʷa‘kã̈ÿ* ‘I finished measuring it’

Progressive Imperfective: *ÿánde‘ ÿa‘#nx̣akã̈ÿ* ‘I’m finishing measuring it’

One sometimes comes across cases where it is difficult to distinguish a variable root with invariant-stem paradigm from an invariable root. Example (36) is such a case. This is a suppletive collective theme corresponding to non-collective *O-S-∅-ǯaɢ** (∅: Event.) ‘S kills O’, given below as (53). Being Eventive themes, these both lack Terminative and Inceptive forms. Moreover, aspectually-marked derivatives of (46) are subject to confusion with the near-homophonous theme *O-S-∅-ˀin**(∅: ‘-Process.) ‘S gathers plural O (berries)’ and so are avoided. For example, the Exhaustive of (46) is not used; that of *O-S-∅-ǯaɢ**occurs instead. In short, then, the forms we would turn to to find if the verb has an invariant-stem paradigm rather than an invariable stem are missing--all, that is, but one: the attributive/proclitic stem form. The fact that this stem form does not undergo reduction, as seen in the Imperfective Habitual, provides the sole bit of evidence that we are dealing with an invariable root rather than an invariant stem; compare the reduced stems found in (43) and (44).

(46) Theme *O-S-∅-ˀi‘n* (na: root-Process.) ‘S kills plural O, harvests O (game)’

Perfective: *x̣ʷaˀˀi‘n* ‘I killed them’

Irrealis: *x̣ʷaˀi‘n*

Future: *kuqaˀi‘n* ‘I will kill them’

Irrealis: *kuqaˀi‘n*

Potential: *ˀunqaˀˀi‘n* ‘I may kill them’

Perfective Habitual: *nax̣aˀiʻnʒ* 'I always kill them'

Imperative: *naˀiʻn* 'kill them!'

Hortative: *naqaˀiʻn* 'let me kill them'

Admonitive: *ni·ˀiʻn#cé* 'see that you don't kill them!'

Consecutive: *nax̣aˀiʻn* 'when/after I killed them'

Conditional: *nax̣aˀiʻnni·* 'when/if I kill them'

Contingent: *naqaˀiʻnin* 'whenever I kill them'

Primary Imperfective: *x̣aˀiʻn* 'I'm killing them'

Irrealis: *x̣ʷaˀiʻn*

Impf. Habitual: *x̣aˀiʻn#nuʻʒ* 'I'm always killing them'

7.1.2.5. Dual-aspect themes

The following exemplifies themes which occur in both Telic and Atelic aspect forms. Note especially that the semantic distinctions between the Imperfective forms do not correlate with the Telic-Atelic distinction. In such cases we may regard the Imperfective forms as shared by both the Telic and the Atelic paradigms, and so regard this as a dual-aspect theme.

(47) Theme *O-S-∅-xał** (∅/na: ·-Process.) 'S cuts O'

Telic:

Perfective: *x̣ʷaʻxáł* 'I cut it up/out (e.g. cutting something into finished pieces; cutting out a pattern)'

Irrealis: *x̣ʷaxaʻł*

Future: *kuqaxá·ł* 'I will cut it up/out'

Irrealis: *kuqaxaʻł*

Potential: *qʷaʻxaʻł ~ qʷaʻxáł* 'I may cut it up/out'

Perfective Habitual: *x̣ʷaxaʻłʒ ~ x̣ʷaxáłʒ* 'I always cut it up/out'

Imperative: *xáš* ‘cut it up/out!’

Hortative: *qaxa‘š ~ qaxáš* ‘let me cut it up/out’

Admonitive: *ʔi·xá·š#cé* ‘see that you don’t cut it up/out!’

Consecutive: *x̣axá·š* ‘when/after I cut it up/out’

Conditional: *x̣axášni‘* ‘when/if I cut it up/out’

Contingent: *qaxášin* ‘whenever I cut it up/out’

Atelic:

Perfective: *x̣ʷa‘xa‘š* ‘I cut it’

Irrealis: *x̣ʷaxa‘š*

Future: *kuqaxá·š* ‘I will cut it’

Irrealis: *kuqaxa‘š*

Potential: *ʔunqa‘xa‘š* ‘I may cut it’

Perfective Habitual: *nax̣axášǯ* ‘I always cut it’

Imperative: *naxa‘š* ‘cut it!’

Hortative: *naqaxa‘š* ‘let me cut it’

Admonitive: *ni·xá·š#cé* ‘see that you don’t cut it!’

Consecutive: *nax̣axá·š* ‘when/after I cut it’

Conditional: *nax̣axášni‘* ‘when/if I cut it’

Contingent: *naqaxášin* ‘whenever I cut it’

Primary Imperfective: *x̣axá·š* ‘I’m cutting it (up/out)’

Irrealis: *x̣ʷaxa‘š*

Impf. Habitual: *x̣axaš#nu‘ǯ* ‘I’m always cutting it’

Primary Imperfective: *x̣axášgʷ* ‘I’m cutting it (a little bit at a time), trimming it by cutting’

Iterative Imperfective: *x̣axášx̣* ‘I cut it (repeatedly); I keep trying to cut it’

Terminative:

Perfective: *ÿan#x̣ʷa‘xáš* ‘I finished cutting it’

Progressive Imperfective: *ÿándeʻ ÿaʻ#nax̣xáš* 'I'm finishing cutting it'

Where the theme takes a ʻ-Processive Imperfective, the stem of this Imperfective is generalized throughout the na-aspect paradigm, as explained in the preceding section. In fact, it seems probable that ALL themes with ʻ-Processive Imperfectives take na-aspect paradigms: they may be either na-aspect themes or dual-aspect themes, but not solely Telic themes.

(48) Theme *O-ka-S-∅-yex̣** (0/na: ʻ-Process.) 'S whittles O'

Perfective: *kax̣^{w}aʻyéx̣* 'I whittled it'

Irrealis: *kax̣^{w}ayeʻx̣*

Future: *kag^{w}qayé·x̣* 'I will whittle it'

Irrealis: *kag^{w}qayeʻx̣*

Potential: *kuʻqaʻyeʻx̣* ~ *kuʻqaʻyéx̣* 'I may whittle it'

Perfective Habitual: *kuʻx̣ayeʻx̣ʒ* ~ *kuʻx̣ayéx̣ʒ* 'I always whittle it'

Imperative: *kayéx̣* 'whittle it!'

Hortative: *kaqayeʻx̣* ~ *kaqayéx̣* 'let me whittle it'

Admonitive: *kiʻyé·x̣#cé* 'see that you don't whittle it!'

Consecutive: *kax̣ayé·x̣* 'when/after I whittled it'

Conditional: *kax̣ayéx̣niʻ* 'when/if I whittle it'

Contingent: *kaqayéx̣in* 'whenever I whittle it'

Perfective: *kax̣^{w}aʻyeʻx̣* 'I whittled it'

Irrealis: *kax̣^{w}ayeʻx̣*

Future: *kag^{w}qayeʻx̣* 'I will whittle it'

Irrealis: *kag^{w}qayeʻx̣*

Potential: *kuʻnqaʻyeʻx̣* 'I may whittle it'

Perfective Habitual: *kanx̣ayeʻx̣ʒ* 'I always whittle it'

Imperative: *kanaye‘x̣* ‘whittle it!’

Hortative: *kanqaye‘x̣* ‘let me whittle it’

Admonitive: *kani·ye‘x̣#cé* ‘see that you don’t whittle it!’

Consecutive: *kanx̣aye‘x̣* ‘when/after I whittled it’

Conditional: *kanx̣aye‘x̣ni·* ‘when/if I whittle it’

Contingent: *kanqaye‘x̣in* ‘whenever I whittle it’

Primary Imperfective: *kax̣aye‘x̣* ‘I’m whittling it’

Irrealis: *ku‘x̣aye‘x̣*

Impf. Habitual: *kax̣ayex̣#nu‘ǯ* ‘I’m always whittling it’

Iterative Imperfective: *kax̣ayéx̣x̣* ‘I whittle it (repeatedly); I keep trying to whittle it’

Terminative:

Perfective: *ÿan#kax̣ʷa‘yéx̣* ‘I finished whittling it’

Progressive Imperfective: *ÿánde‘ ÿa‘#kanx̣ayéx̣* ‘I’m finishing whittling it’

(49) Theme *ˀad-S-∅-šu*ɢ* (0/na: ‘-Process.) ‘S laughs, smiles’

Telic:

Perfective: *ˀad-x̣ʷa‘šú*ɢ ‘I laughed, smiled (i.e. laughed a laugh, smiled a smile)’

Irrealis: *ˀad-x̣ʷašu‘*ɢ

Future: *ˀad-kuqašú·*ɢ ‘I will laugh, smile’

Irrealis: *ˀad-kuqašu‘*ɢ

Potential: *ˀad-qʷa‘šu‘*ɢ ~ *ˀad-qʷa‘šú*ɢ ‘I may laugh, smile’

Perfective Habitual: *ˀad-x̣ʷašu‘*ɢǯ ~ *ˀad-x̣ʷašú*ɢǯ ‘I always laugh, smile’

Imperative: *ˀad-šú*ɢ ‘laugh, smile!’

Hortative: *ˀad-qašu‘*ɢ ~ *ˀad-qašú*ɢ ‘let me laugh, smile’

Admonitive: *ˀad-ˀi·šú·*ɢ*#cé* ‘see that you don’t laugh, smile!’

Consecutive: *ˀad-x̣ašú·*ɢ ‘when/after I laughed, smileed’

Conditional: *ˀad-x̣ašú*ɢ*ni‘* ‘when/if I laugh, smile’

Contingent: *ʔad-qašú*ɢ*ún* ‘whenever I laugh, smile’

Atelic:

Perfective: *ʔad-x̣ʷa‘šu‘*ɢ ‘I laughed, smiled (for a while)’

Irrealis: *ʔad-x̣ʷašu‘*ɢ

Future: *ʔad-kuqašu‘*ɢ ‘I will laugh, smile’

Irrealis: *ʔad-kuqašu‘*ɢ

Potential: *ʔad-ʔunqa‘šu‘*ɢ ‘I may laugh, smile’

Perfective Habitual: *ʔad-nax̣ašu‘*ɢʒ ‘I always laugh, smile’

Imperative: *ʔad-našu‘*ɢ ‘laugh, smile!’

Hortative: *ʔad-naqašu‘*ɢ ‘let me laugh, smile’

Admonitive: *ʔad-ni·šu‘*ɢ*#cé* ‘see that you don’t laugh, smile!’

Consecutive: *ʔad-nax̣ašu‘*ɢ ‘when/after I laughed, smiled’

Conditional: *ʔad-nax̣ašu‘*ɢ*ní·* ‘when/if I laugh, smile’

Contingent: *ʔad-naqašu‘*ɢ*ún* ‘whenever I laugh, smile’

Primary Imperfective: *ʔad-x̣ašu‘*ɢ ‘I’m laughing, smiling’

Irrealis: *ʔad-x̣ʷašu‘*ɢ

Impf. Habitual: *ʔad-x̣ašu*ɢ*#nu‘ʒ* ‘I’m always laughing, smiling’

Iterative Imperfective: *ʔad-x̣ašú*ɢx̣ ‘I laugh, smile (repeatedly); I keep trying to laugh, smile’

The following theme is the only extant example of a dual-aspect theme with an irregular invariant stem with dropped *ÿ* (here rounded by the preceding vowel). The fact that the primary Imperfective takes the stem *-ʔú’w* rather than the invariant stem *-ʔu‘* is rather surprising; compare 7.1.2.4.(4), where the analogous invariant stem *-ka‘* is used in the primary Imperfective.[11]

(50) Theme *O-S-ʔuw•’* (0/na: ‘-Process., Atelic paradigm with invariant stem *-ʔu‘*) ‘S buys O’

Telic:

Perfective: *x̣ʷaʔúw* ‘I bought it out; I bought them (all)’

Irrealis: *x̣ʷaʔú’w*

Future: *kuqaʔú’w* ‘I will buy it out’

Irrealis: *kuqaʔú’w*

Potential: *qʷaʔú’w* ~ *qʷaʔúw* ‘I may buy it out’

Perfective Habitual: *x̣ʷaʔú’wʒ* ~ *x̣ʷaʔúwʒ* ‘I always buy it out’

Imperative: *ʔúw* ‘buy it out!’

Hortative: *qaʔú’w* ~ *qaʔúw* ‘let me buy it out’

Admonitive: *ʔi·ʔú’w#cé* ‘see that you don’t buy it out!’

Consecutive: *x̣aʔú’w* ‘when/after I bought it out’

Conditional: *x̣aʔúwni‘* ‘when/if I buy it out’

Contingent: *qaʔúwin* ‘whenever I buy it out’

Atelic:

Perfective: *x̣ʷaʔu‘* ‘I bought it’

Irrealis: *x̣ʷaʔu‘*

Future: *kuqaʔu‘* ‘I will buy it’

Irrealis: *kuqaʔu‘*

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[11] The explanation for this interesting discrepancy may be that at one time this theme did have two distinct primary Imperfectives, one with stem *-ʔú’w* (from the Telic cotheme) and one with stem *-ʔu‘* (from the Atelic cotheme). Since these two Imperfectives would have been semantically virtually interchangeable, the latter could have been eliminated as superfluous.

Potential: *ʔunqaʔu‘* ‘I may buy it’

Perfective Habitual: *nax̣aʔʷe‘ǯ* ‘I always buy it’

Imperative: *naʔu‘* ‘buy it!’

Hortative: *naqaʔu‘* ‘let me buy it’

Admonitive: *ni·ʔu‘#cé* ‘see that you don’t buy it!’

Consecutive: *nax̣aʔu‘* ‘when/after I bought it’

Conditional: *nax̣aʔʷe‘ni·* ‘when/if I buy it’

Contingent: *naqaʔʷe‘nín* ‘whenever I buy it’

Primary Imperfective: *x̣aʔú‘w* ‘I’m buying it’

Irrealis: *x̣ʷaʔú‘w*

Impf. Habitual: *x̣aʔuw#nu‘ǯ* ‘I’m always buying it’

Terminative:

Perfective: *ÿan#x̣ʷaʔúw* ‘I finished buying it’

Progressive Imperfective: *ÿánde‘ ÿa‘#nx̣aʔúw* ‘I’m finishing buying it’

In some cases it is not clear whether paradigms that differ only in aspect constitute one or two themes, and if two themes, how to separate them. The following is a particularly difficult case, which I feel is best treated as two themes, the first an Eventive theme (51), and the second a dual-aspect Processive theme (52). This analysis has the rather awkward result, however, of producing two semantically distinct but formally identical Telic paradigms. Note also that, no matter how these forms are treated, the Tlingit aspectual distinctions cannot be forced to reflect directly those of the English glosses ‘bite’ and ‘chew’.

(51) Theme *O-S-∅-tax’** (∅: Event.) ‘S bites O (gives O a bite)’

Perfective: *x̣ʷa‘táx’* ‘I bit it’

Irrealis: *x̣ʷatá’x’*

Future: *kuqatá·x’* ‘I will bite it’

Irrealis: *kuqatá’x’*

Potential: *qʷa‘tá’x’* ~ *qʷa‘táx’* ‘I may bite it’

Perfective Habitual: *x̣ʷatá’x’ʒ* ~ *x̣ʷatáx’ʒ* ‘I always bite it’

Imperative: *táx’* ‘bite it!’

Hortative: *qatá’x’* ~ *qatáx’* ‘let me bite it’

Admonitive: *ʔi·tá·x’#cé* ‘see that you don’t bite it!’

Consecutive: *x̣atá·x’* ‘when/after I bit it’

Conditional: *x̣atáx’ni‘* ‘when/if I bite it’

Contingent: *qatáx’in* ‘whenever I bite it’

Iterative Imperfective: *x̣atáx’d* ‘I’m biting it (repeatedly)’

Iterative Imperfective: *x̣atáx’x̣* ‘I bite it (repeatedly); I keep biting it’

(52) Theme *O-S-∅-tax’** (∅/na: ·-Process.) ‘S chews O, bites O’

Telic:

Perfective: *x̣ʷa‘táx’* ‘I chewed it up’

Irrealis: *x̣ʷatá’x’*

Future: *kuqatá·x’* ‘I will chew it up’

Irrealis: *kuqatá’x’*

Potential: *qʷa‘tá’x’* ~ *qʷa‘táx’* ‘I may chew it up’

Perfective Habitual: *x̣ʷatá’x’ʒ* ~ *x̣ʷatáx’ʒ* ‘I always chew it up’

Imperative: *táx’* ‘chew it up!’

Hortative: *qatá’x’* ~ *qatáx’* ‘let me chew it up’

Admonitive: *ʔi·tá·x’#cé* ‘see that you don’t chew it up!’

Consecutive: *x̣atá·x’* ‘when/after I chewed it up’

Conditional: *x̣atáx’ni‘* ‘when/if I chew it up’

Contingent: *qatáx’in* ‘whenever I chew it up’

Atelic:

Perfective: *x̣ʷa‘tá’x’* ‘I chewed it, bit it’

Irrealis: *x̣ʷatá’x’*

Future: *kuqatá·x’* ‘I will chew it, bite it’

Irrealis: *kuqatá’x’*

Potential: *ʔunqa‘tá’x’* ‘I may chew it, bite it’

Perfective Habitual: *nax̣atáx’ʒ* ‘I always chew it, bite it’

Imperative: *natá’x’* ‘chew it, bite it!’

Hortative: *naqatá’x’* ‘let me chew it, bite it’

Admonitive: *ni·tá·x’#cé* ‘see that you don’t chew it, bite it!’

Consecutive: *nax̣atá·x’* ‘when/after I chewed it, bit it’

Conditional: *nax̣atáx’ni‘* ‘when/if I chew it, bite it’

Contingent: *naqatáx’in* ‘whenever I chew it, bite it’

Primary Imperfective: *x̣atá·x’* ‘I'm chewing it’

Irrealis: *x̣ʷatá’x’*

Imperfective Habitual: *x̣atax’#nu‘ʒ* ‘I'm always chewing it’

Iterative Imperfective: *yu‘#x̣a‘táx’g* ‘I chew it, bite it (repeatedly); I keep chewing it, biting it’

7.1.3. Eventive themes

7.1.3.1. Non-Involuntary Eventives

With Eventive themes the Terminative and Inceptive derivatives are semantically odd and only marginally if at all acceptable. This appears to be due to the fact that such themes refer to events that culminate in an instantaneous change of state; hence, for example, the Perfective of the Terminative derivative *ʔÿan#x̣ʷa‘ǯá*ɢ ‘I finished killing it’ is semantically subsumed by the underived Perfective *x̣ʷa‘ǯá*ɢ ‘I killed it’.

(53) Theme *O-S-∅-ǯa*ɢ* (∅: Event.) ‘S kills O’

Perfective: *x̣ʷa‘ǯá*ɢ ‘I killed it’

Irrealis: *x̣ʷaǯa‘*ɢ

Future: *kuqaǯá·*ɢ ‘I will kill it’

Irrealis: *kuqaǯa‘*ɢ

Potential: *qʷa‘ǯa‘*ɢ ~ *qʷa‘ǯá*ɢ ‘I may kill it’

Perfective Habitual: *x̣ʷaǯa‘*ɢ*ǯ* ~ *x̣ʷaǯá*ɢ*ǯ* ‘I always kill it’

Imperative: *ǯá*ɢ ‘kill it!’

Hortative: *qaǯa‘*ɢ ~ *qaǯá*ɢ ‘let me kill it’

Admonitive: *ʔi·ǯá·*ɢ*#cé* ‘see that you don’t kill it!’

Consecutive: *x̣aǯá·*ɢ ‘when/after I killed it’

Conditional: *x̣aǯá*ɢ*ni‘* ‘when/if I kill it’

Contingent: *qaǯá*ɢ*ín* ‘whenever I kill it’

Iterative Imperfective: *x̣aǯá*ɢ*x̣* ‘I kill it (repeatedly); I keep trying to kill it’

Progressive Imperfective: *ÿa‘#nx̣aǯá*ɢ ‘I’m killing it’

Theme (54) is representative of a subgroup of Telic Eventive themes that might be called Ictic themes, which denote hitting. These take d-Iteratives that denote repeated attempts to hit, as well as the preictable x̣-Iteratives; most of these also have Errative derivatives (e.g. *O-ÿa-u·-S-s-ʔúnx̣a‘* (∅: Processive) ‘S shoots and misses O’).

(54) Theme *O-S-∅-ʔun*’* (0: Event.) ‘S shoots O (with a gun or cannon)’

Perfective: *x̣ʷaʔún* ‘I shot it’

Irrealis: *x̣ʷaʔú’n*

Future: *kuqaʔú’n* ‘I will shoot it’

Irrealis: *kuqaʔú’n*

Potential: *qʷaʔú’n ~ qʷaʔún* ‘I may shoot it’

Perfective Habitual: *x̣ʷaʔú’nǯ ~ x̣ʷaʔúnǯ* ‘I always shoot it’

Imperative: *ʔún* ‘shoot it!’

Hortative: *qaʔú’n ~ qaʔún* ‘let me shoot it’

Admonitive: *ʔi·ʔú’n#cé* ‘see that you don’t shoot it!’

Consecutive: *x̣aʔú’n* ‘when/after I shot it’

Conditional: *x̣aʔúnni‘* ‘when/if I shoot it’

Contingent: *qaʔúnín* ‘whenever I shoot it’

Iterative Imperfective: *x̣aʔúnd* ‘I’m shooting at it (repeatedly); I’m taking shots at it”

Iterative Imperfective: *x̣aʔúnx̣* ‘I’m shooting it (repeatedly); I keep taking shots at it’

?**Multiple-iterative Imperfective:** *x̣aʔúnt’* ‘I’m shooting them (one after another)’

The following are examples of Atelic Eventive themes. Here again, note that the Terminative derivative is semantically odd.

(55) Theme *O-ÿa-S-∅-λa*ɢ* (na: Event.) ‘S overcomes O, beats O (opponent), reaches O (goal), wins O, earns O’

Perfective: *ÿax̣ʷa‘λa‘*ɢ ‘I overcame him/her/it’

Irrealis: *ÿax̣ʷaλa‘*ɢ

Future: *ÿagʷqaλá·*ɢ ‘I will overcome him/her/it’

Irrealis: *ÿagʷqaλa‘*ɢ

Potential: *wu‘nqa‘λa‘*ɢ ‘I may overcome him/her/it’

Perfective Habitual: *ÿanx̣aλá*ɢʒ ‘I always overcome him/her/it’

Imperative: *ÿanaλa‘*ɢ ‘overcome him/her/it!’

Hortative: *ÿanqaλa‘*ɢ ‘let me overcome him/her/it’

Admonitive: *ÿani·λá·*ɢ*#cé* ‘see that you don’t overcome him/her/it!’

Consecutive: *ÿanx̣aλá·*ɢ ‘when/after I overcome him/her/it’

Conditional: *ÿanx̣aλá*ɢ*ni‘* ‘when/if I overcome him/her/it’

Contingent: *ÿanqaλá*ɢ*in* ‘whenever I overcome him/her/it’

Iterative Imperfective: *yu‘#ÿax̣a‘λá*ɢʷ*g* ‘I overcome him/her/it (repeatedly); I keep trying to overcome him/her/it’

(56) Theme *O-S-∅-t’i‘* (ga: Event.) ‘S finds O’

Perfective: *x̣ʷa‘t’i‘* ‘I (have) found it’

  Irrealis: *x̣ʷat’i‘*

Future: *ke‘#gʷqat’i‘* ‘I will find it’

  Irrealis: *ke‘#gʷqat’i‘*

Potential: *gu‘qa‘t’i‘* ‘I may find it’

Occasional: *gax̣at’i‘ʒ* ‘I always find it’

Imperative: *gat’i‘* ‘find it!’

Hortative: *gaqat’i‘* ‘let me find it’

Admonitive: *gi·t’i‘#cé* ‘see that you don’t find it!’

Consecutive: *gax̣at’i‘* ‘when/after I found it’

Conditional: *gax̣at’i‘ni·* ‘when/if I find it’

Contingent: *gaqat’i‘nin* ‘whenever I find it’

Iterative Imperfective: *ke‘#x̣at’i‘ʒ* ‘I find it (repeatedly); I keep finding it’

Multiple-iterative Imperfective: *x̣at’i’dx’* ‘I’m finding them (repeatedly); I keep finding them’

Progressive Imperfective: *ke‘#nx̣at’i‘n* ‘I’m finding it more exactly; I’m beginning to find it’

7.1.3.2. Involuntary Eventive themes

The examples in this section are representative of Involuntary Eventive themes. These take ∅-, na-, or ɢa-aspect; there are no Involuntary Stative themes with ga-aspect.

(57) Theme *O-d-x*^{w}*eλ*'* (∅: Event.) 'O becomes tired'

Perfective: *wudix*^{w}*éλ* 'he/she has become tired, is tired'

Irrealis: *wudax*^{w}*é'λ*

Future: *gux̣dax*^{w}*é'λ* 'he/she will be(come) tired'

Irrealis: *gux̣dax*^{w}*é'λ*

Potential: ɢ*adix*^{w}*é'λ* ~ ɢ*adix*^{w}*éλ* 'he/she may be(come) tired'

Occasional: *ʔudax*^{w}*é'λǯ* ~ *ʔudax*^{w}*éλǯ* 'he/she always is/becomes tired'

Imperative: *ʔi-dax*^{w}*éλ* 'become tired!'

Hortative: ɢ*adax*^{w}*é'λ* ~ ɢ*adax*^{w}*éλ* 'let him/her be(come) tired'

Admonitive: *ʔi-'dax*^{w}*é'λ#cé* 'see that you don't become tired!'

Consecutive: *dax*^{w}*é'λ* 'when/after he/she became tired'

Conditional: *dax*^{w}*éλni'* 'when/if he/she becomes tired'

Contingent: ɢ*adax*^{w}*éλin* 'whenever he/she becomes tired'

Iterative Imperfective: *dax*^{w}*éλx̣* 'he/she becomes tired (repeatedly)'

Progressive Imperfective: *ÿa'#ndax*^{w}*éλ* 'he/she is becoming tired'

(58) Theme *O-∅-na*·* (na: Event.) 'O dies'

Perfective: *wu'na'* 'it is dead, died'

Irrealis: *wuna'*

Future: *gu*ɢ*aná·* 'it will die'

Irrealis: *gu*ɢ*ana'*

Potential: *ʔun*ɢ*a‘na‘* ‘it may die’

Occasional: *nanáˑǯ* ‘it always dies’

Imperative: *ʔi-naná* ‘die!’

Hortative: *na*ɢ*ana‘* ‘let it die’

Admonitive: *ʔunanáˑ#cé* ‘see that it doesn’t die!’

Consecutive: *nanáˑ* ‘when/after it died’

Conditional: *nanáˑni‘* ‘when/if it dies’

Contingent: *na*ɢ*anáˑnin* ‘whenever it dies’

Iterative Imperfective: *yu‘#ÿanáˑgʷ* ‘it dies (repeatedly)’

Multiple-iterative Imperfective: *has-náˑt’* ‘they die (one after another); they die off’

Progressive Imperfective: *ÿa‘#nanáˑn* ‘it is dying’

(59) Theme *O-∅-šá’š* (ɢa: Event.) ‘O wears out’

Perfective: *wudišá’š* ‘it has worn out, is worn out’

Irrealis: *wudašá’š*

Future: *ye‘#gʷ*ɢ*ašá’š* ‘it will wear out’

Irrealis: *ye‘#gʷ*ɢ*ašá’š*

Potential: ɢʷ*a‘*ɢ*a‘šá’š* ‘it may wear out’

Occasional: ɢ*ašá’šǯ* ‘it always wears out’

Imperative: *ʔi-*ɢ*ašá’š* ‘wear out!’

Hortative: ɢ*a‘*ɢ*ašá’š* ‘let it wear out’

Admonitive: *ʔi-‘*ɢ*ašá’š#cé* ‘see that you don’t wear out!’

Consecutive: ɢ*ašá’š* ‘when/after it wore out’

Conditional: ɢ*ašá’šni‘* ‘when/if it wears out’

Contingent: ɢ*a‘*ɢ*ašá’šin* ‘whenever it wears out’

Iterative Imperfective: *ye‘#šá’šǯ* ‘it wears out (repeatedly)’

Progressive Imperfective: *ye‘#našá’š* ‘it is wearing out’

Since themes (57)-(59) are objective and Eventive, they are predictably Involuntary Eventive. Note also that they are similar in meaning to Descriptive Stative themes. Themes (60)-(61), on the other hand, are semantically similar to Cognitive Stative themes.

(60) Theme *O-S-s-ku*ʼ* (*0·*, Invol. Event.) ‘S becomes familiar with O, comes to know O’

Perfective: *x̣ʷasikú·* ‘I have become familiar with it; I know it; I knew it’

Irrealis: *x̣ʷasakú*

Future: *kuqasakú·* ‘I will know it’

Irrealis: *kuqasakuʼ*

Potential: *qʷasikú·* ‘I may know it’

Occasional: *x̣ʷasakú·wǯ* ‘I always know it’

Imperative: *sakú·* ‘know it!’

Hortative: *qasakú·* ‘let me know it’

Admonitive: *ʔisakú·#cé* ‘see that you don’t know it!’

Consecutive: *x̣asakú·* ‘when/after I came to know, knew it’

Conditional: *x̣asakʷé·niʼ* ‘when/if I (come to) know it’

Contingent: *qasakʷé·nín* ‘whenever I (come to) know it’

Iterative Imperfective: *x̣asakʷeʼx̣* ‘I know it (repeatedly)’

Multiple-iterative Imperfective: *x̣asakʷeʼtʼ* ‘I become familiar with them, know them (various things or people)’

Progressive Imperfective: *ÿaʼ#nax̣sakʷé·n* ‘I am becoming familiar with it, coming to know it’

(61) Theme *O-S-s-tin** (Ga: Invol. Event.) ‘S catches sight of, sees O’

Perfective: *x̣ʷasitiʼn* ‘I have caught sight of it; I see it; I saw it’

Irrealis: *x̣ʷasatiʼn*

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Future: *ye'#gʷqasatí·n* 'I will see it'

Irrealis: *ye'#gʷqasati'n*

Potential: *qʷa'qasiti'n* 'I may see it'

Occasional: *qʷasatínǯ* 'I always see it; I always catch sight of it'

Imperative: *Gasti'n* 'see it!'

Hortative: *qa'qasati'n* 'let me see it'

Admonitive: *Gisatí·n#cé* 'see that you don't see it!'

Consecutive: *qasatí·n* 'when/after I saw it'

Conditional: *qasatínni'* 'when/if I see it'

Contingent: *qa'qasatínin* 'whenever I see it'

Iterative Imperfective: *ye'#xsatínǯ* 'I see it (repeatedly); I keep catching sight of it'

Progressive Imperfective: *ye'#naxsatín* 'I am catching sight of it; I am beginning to see it'

7.2. Motion themes

Motion themes are those that have no intrinsic lexical aspect, but always occur with derivational strings that provide the aspect. Such themes refer to transition from one place to another.[12] Motion themes may on various grounds be divided into various categories, the most important of which are listed and illustrated below:

a. Nontransitive themes of controlled motion

*S-∅-gud**'single S walks, goes on foot'

*S-∅-ʔad**'plural S walk, go on foot'

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[12] As usual, however, the concept of motion may be metaphorically extended so that it refers to transfer of property, transition from one state of mind to another, etc.

_S-∅-qux̨_*‘S goes in a single canoe, boat’

_O-ÿa-∅-gu_*·‘S goes in a fleet/group of canoes, boats’

_S-∅+D-qin_*‘single S flies’

_O-ka-ł+D-ÿiǯ_* ‘plural S fly’

b. Nontransitive themes of uncontrolled motion (falling, moving through space)

_O-∅-xix_*‘single unclassified S falls, moves through space’

_O-š+D-x̨in_* ‘single wooden O falls, moves through space’

_O-s+D-gid_* ‘single animate O falls, moves through space’

_O-ka-∅-sú’s_‘plural S fall, move through space’

_O-∅+D-ɢad_*‘plural S fall scattered’

c. Transitive themes of controlled motion (handling: taking, bringing, carrying, giving, putting, etc.)

_O-S-∅-ti_*“S handles single unclassified O’

_O-S-∅-tan_*‘S handles single wooden O’

_O-S-s-nug_* ‘S handles single live conscious animate O’

_O-S-s-ta_*‘ ‘S handles single dead/unconscious animate O’

_O-S-ł-ʔad_* ‘S handles plural inanimate O or dead/unconscious animate O’

_O-S-s-qi_*· ‘S handles plural live conscious animate O’

_O-ka-S-∅-ǯeł_*‘S handles plural inanimate O in a disorganized bunch’

d. Transitive themes of uncontrolled motion (throwing, handling abruptly)

*O-S-∅-*ɢ*ix'**'S throws, abruptly handles single unclassified O'

*O-S-∅-x̣iǯ**'S throws, abruptly handles single wooden or animate O'

*O-S-∅-*ɢ*iǯ**'S throws, abruptly handles plural O'

A subset of themes from group (c), together with themes of groups (b) and (d), form a system of CLASSIFICATORY THEMES: the choice of theme reflects the classificatory category to which the referent of the object belongs.[13] I have listed only a few of the most common classificatory themes in each category.

7.2.1. Derivational strings

As far as possible, derivational strings for Motion themes will be exemplified in combination with the theme *O-S-∅-tan**(Motion) 'S handles single wooden O'. Certain derivational strings do not occur with themes of handling or have special uses with other types of motion themes; these are illustrated with other themes.

Aspectual derivational strings fall into the following major aspectual categories:

Telic (0-aspect):

plain:

with ǯ-Iterative (motion toward area)

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[13] Athabaskanists (myself included) sometimes misleadingly restrict the use of the term 'classificatory theme' to the third group, the themes of handling. These themes are no more 'classificatory' in nature than the rest; however, this group manifests the greatest number of classificatory distinctions; some of these distinctions are variously collapsed in the other groups.

with ‘-Iterative (motion toward terminus)

with x̣-Iterative (motion originating from or confined to a location)

with yu‘#(I)g-Iterative (oscillatory motion)

with *ÿa-u·-*:

with ǯ-Iterative (unbounded motion proceeding obliquely)

with x̣-Iterative (retrogressive motion)

Atelic:

na-aspect:

with yu‘#(I)g-Iterative (unbounded motion proceeding directly)

without Iterative (unbounded non-directed motion)

ga-aspect: with ke‘#ǯ-Iterative (inceptive motion)

ɢa-aspect: with ye‘#ǯ-Iterative (motion downward)

In the following sections, the known aspectual derivational strings in each group are listed and followed by one or more paradigms illustrating the group.

7.2.1.1. Telic derivational strings

7.2.1.1.1. Telic derivational strings with ǯ-Iterative

All these strings but the last are all formed with directional proclitics and take ‘-stem Imperatives (as do also *ne‘ɬ#* and *ɢunaÿé’#*). The string with *qux̣#*, however, behaves like those of the following section except for the fact that it takes the ǯ-Iterative. Semantically, these strings denote motion toward the area denoted by the directional.

ke‘# ‘moving up’; *ʔuẋ#ke‘#* ‘moving out of control, blindly, amiss’; *NO-ẋ’é-’ ke‘#* ‘catching up with NO’

ye‘# ‘getting out of canoe, boat, vehicle’

ÿi‘ɢ#/ÿe‘ɢ#/ʔi‘ɢ# ‘moving down to beach/shore’; *hí·n-i ÿi‘ɢ#* ‘moving down into the water’

da‘ɢ# ‘moving up from shore/beach, back away from open, off fire‘; *dá·ɢ-i da‘ɢ#* ‘moving further up from shore/beach, back, etc.’ *qʷá·ɢ-ẋ da‘ɢ#* ‘doing by mistake, erroneously’

da‘g# ‘moving out to sea, into open, onto fire; (with Nontransitive themes of uncontrolled motion) falling down’

quẋ#(~*qúẋde‘*) (with the addition of +D in non-transitive themes) ‘returning, going/coming back’; *NO-x’ quẋ#* ‘returning to PO; going/coming back to PO’, especially in *ʔá-’ quẋ#* ‘returning there; going/coming back there’

(62) Derivational string *ke‘#* (∅) ‘moving up’

Perfective: *ke‘#ẋʷa‘tán* ‘I brought it up’

Irrealis: *ke‘#ẋʷata‘n*

Future: *ke‘#gʷqatá·n* ‘I will bring it up’

Irrealis: *ke‘#gʷqata‘n*

Potential: *ke‘#qʷa‘ta‘n* ‘I may bring it up’

Perfective Habitual: *ke‘#ẋʷata‘nǯ* ‘I always bring it up’

Imperative: *ke‘#ta‘n* ‘bring it up!’

Hortative: *ke‘#qata‘n* ‘let me bring it up’

Admonitive: *ke‘#ʔi·tá·n#cé* ‘see that you don’t bring it up!’

Consecutive: *ke‘#x̣atá·n* ‘when/after I brought it up’

Conditional: *ke‘#x̣atánni‘* ‘when/if I bring it up’

Contingent: *ke‘#qatánin* ‘whenever I bring it up’

Iterative Imperfective: *ke‘#x̣atánǯ* ‘I bring it up (repeatedly); I keep bringing it up’

Progressive Imperfective: *ke‘#nx̣atán* ‘I’m bringing it up’

(63) Derivational string *qux̣#(~ qúx̣de‘)* (∅) ‘moving up’

Perfective: *qux̣#x̣ʷa‘tán* ‘I brought it back’

Irrealis: *qux̣#x̣ʷata‘n*

Future: *qúx̣de‘ gʷqatá·n* ‘I will bring it back’

Irrealis: *qúx̣de‘ gʷqata‘n*

Potential: *qux̣#qʷa‘ta‘n* ‘I may bring it back’

Perfective Habitual: *qux̣#x̣ʷata‘nǯ* ‘I always bring it back’

Imperative: *qux̣#tán* ‘bring it back!’

Hortative: *qux̣#qata‘n* ‘let me bring it back’

Admonitive: *qux̣#ʔi·tá·n#cé* ‘see that you don’t bring it back!’

Consecutive: *qux̣#x̣atá·n* ‘when/after I brought it back’

Conditional: *qux̣#x̣atánni‘* ‘when/if I bring it back’

Contingent: *qux̣#qatánin* ‘whenever I bring it back’

Iterative Imperfective: *qux̣#x̣atánǯ* ‘I bring it back (repeatedly); I keep bringing it back’

Progressive Imperfective: *qúx̣de‘ ÿa‘#nx̣atán* ‘I’m bringing it back’

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7.2.1.1.2. Telic derivational strings with ʻ-Iterative

As discussed in sections 4.1.8 and 6.5, the proclitics in this section, as well as *qux̣#* in the preceding section, are historically from PPs composed of a directional NP plus the postposition *-d*,[14] which alternates with *-x̣* in the Iterative and *-deʻ* in the Progressive and Future. Semantically, these strings generally denote motion toward a terminus.

PO-d(~*PO-x̣*~*PO-deʻ*) ‘arriving at PO, coming to PO’

ÿan#(~*ÿax̣#*~*ÿándeʻ*) ‘moving ashore; coming to rest, to a stop; setting down’, (Terminative, with Processive verbs) ‘finishing V-ing’; with *PO-x’* ‘coming to rest, to a stop at PO’; with *PO-náx̣* ‘moving across PO, to the other side of PO’

kux#(~*kux̣*~*kúxdeʻ*) ‘moving aground, into shallow water’

neʻł#(~*neʻłx̣#*~*neʻłdé·*) ‘moving inside, coming home’; *PO-x’ neʻł#* ‘moving inside house at PO’, especially in *ʔá’ neʻł#* ‘moving inside house (there)’

haʻd#(~*haʻx̣#*~*haʻ(n)dé·*) ‘coming here’

yú·d#(~*yú·x̣#*~*yú·deʻ*) ‘going away’

(64) Derivational string *neʻł#*(~*neʻłx̣#*~*neʻłdé·*)(∅) ‘moving inside, coming home’

Perfective: *neʻł#x̣ʷaʻtán* ‘I brought it inside’

Irrealis: *neʻł#x̣ʷataʻn*

Future: *neʻłdé· gʷqatá·n* ‘I will bring it inside’

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[14] The proclitics *ÿan#*, *neʻł#*, and *qux̣#* take a zero allomorph of *-d*.

Irrealis: *ne‘łdé· gʷqata‘n*

Potential: *ne‘ł#qʷa‘ta‘n* ‘I may bring it inside’

Perfective Habitual: *ne‘ł#x̣ʷata‘nʒ* ‘I always bring it inside’

Imperative: *ne‘ł#ta‘n* ‘bring it inside!’

Hortative: *ne‘ł#qata‘n* ‘let me bring it inside’

Admonitive: *ne‘ł#ʔi·tá·n#cé* ‘see that you don’t bring it inside!’

Consecutive: *ne‘ł#x̣atá·n* ‘when/after I brought it inside’

Conditional: *ne‘ł#x̣atánni‘* ‘when/if I bring it inside’

Contingent: *ne‘ł#qatánin* ‘whenever I bring it inside’

Iterative Imperfective: *ne‘łx̣#x̣ata‘n* ‘I bring it inside (repeatedly); I keep bringing it inside’

Progressive Imperfective: *ne‘łdé· ÿa‘#nx̣atán* ‘I'm bringing it inside’

(65) Derivational string *ÿan#(~ÿax̣# ~ÿánde‘)* (∅) ‘moving ashore; coming to rest, to a stop; setting down’

Perfective: *ÿan#x̣ʷa‘tán* ‘I set it down’

Irrealis: *ÿan#x̣ʷata‘n*

Future: *ÿánde‘ gʷqatá·n* ‘I will set it down’

Irrealis: *ÿánde‘ gʷqata‘n*

Potential: *ÿan#qʷa‘ta‘n* ‘I may set it down’

Perfective Habitual: *ÿan#x̣ʷata‘nʒ* ‘I always set it down’

Imperative: *ÿan#tán* ‘set it down!’

Hortative: *ÿan#qata‘n* ‘let me set it down’

Admonitive: *ÿan#ʔi·tá·n#cé* ‘see that you don’t set it down!’

Consecutive: *ÿan#x̣atá·n* ‘when/after I set it down’

Conditional: *ÿan#x̣atánni‘* ‘when/if I set it down’

Contingent: *ÿan#qatánin* ‘whenever I set it down’

Iterative Imperfective: *ÿax̣#x̣ata‘n* ‘I set it down (repeatedly); I keep setting it down’

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Progressive Imperfective: *ÿánde‘ ÿa‘#nx̣atán* ‘I'm setting it down’

(66) Derivational string *PO-d*(¯ *PO-x̣* ¯ *PO-de‘*)(∅) ‘arriving at PO; coming to PO’

Perfective: *ˀád x̣ʷa‘tán* ‘I brought it to it’

Irrealis: *ˀád x̣ʷata‘n*

Future: *ˀa‘dé· gʷqatá·n* ‘I will bring it to it’

Irrealis: *ˀa‘dé· gʷqata‘n*

Potential: *ˀád qʷa‘ta‘n* ‘I may bring it to it’

Perfective Habitual: *ˀád x̣ʷata‘nǯ* ‘I always bring it to it’

Imperative: *ˀád tán* ‘bring it to it!’

Hortative: *ˀád qata‘n* ‘let me bring it to it’

Admonitive: *ˀád ˀi·tá·n#cé* ‘see that you don't bring it to it!’

Consecutive: *ˀád x̣atá·n* ‘when/after I brought it to it’

Conditional: *ˀád x̣atánni‘* ‘when/if I bring it to it’

Contingent: *ˀád qatánín* ‘whenever I bring it to it’

Iterative Imperfective: *ˀáx̣#x̣ata‘n* ‘I bring it to it (repeatedly); I keep bringing it to it’

Progressive Imperfective: *ˀa‘dé· ÿa‘#nx̣atán* ‘I'm bringing it to it’

7.2.1.1.3. Telic derivational strings with x̣-Iterative

The following telic derivational strings are synchronically or diachronically PPs with the postpositions *-x'*, *-x̣*, or *-dáx̣*.[15] Semantically, these strings tend to denote motion originating from or confined to a specific location.

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[15] As mentioned in 2.2.3, *-x'* has the allegro allomorphs *-'* after a short vowel and *-i* after a consonant; these allomorphs are usual or obligatory in bound phrases such as those given here.

PO-x’ ‘coming into the area of NO, heading (off) into the area of NO’, in the following strings: *NO-ÿá-’* ‘coming up to NO’; *NO-ɢunaÿá-’* ‘separating from NO’; *NO-ǯišá-’* ‘getting ahead of NO’

gági ‘emerging, coming out into the open’

dá·ɢi ‘coming out of the water’

hí·ni ‘going into the water’

ɢunaÿé’#/ɢuné’# ‘starting off’, (Inceptive, with Processive verbs) ‘beginning to V’

PO-x̣ ‘moving in place at PO; trying to move while stuck at PO’

PO-x’ ÿax̣# ‘turning over by PO’, in the following strings: *ˀá-’ ÿax̣#* ‘turning over’; *šú-’ ÿax̣#* ‘turning over by the end’

ÿedx̣#/ÿedax̣# ‘starting off; taking off; picking up’

(67) Derivational string *ˀá’ ÿax̣#* (0: x̣-Iter.) ‘turning over’

Perfective: *ˀá’ ÿax̣#x̣ʷa‘tán* ‘I turned it over’

Irrealis: *ˀá’ ÿax̣#x̣ʷata‘n*

Future: *ˀá’ ÿax̣#kuqatá·n* ‘I will turn it over’

Irrealis: *ˀá’ ÿax̣#kuqata‘n*

Potential: *ˀá’ ÿax̣#qʷa‘ta‘n* ‘I may turn it over’

Perfective Habitual: *ˀá’ ÿax̣#x̣ʷata‘nǯ* ‘I always turn it over’

Imperative: *ˀá’ ÿax̣#tán* ‘turn it over!’

Hortative: *ˀá’ ÿax̣#qata‘n* ‘let me turn it over’

Admonitive: *ˀá’ ÿax̣#ˀi·tá·n#cé* ‘see that you don’t turn it over!’

Consecutive: *ˀá’ ÿax̣#x̣atá·n* ‘when/after I turned it over’

Conditional: *ˀá’ ÿax̣#x̣atánni‘* ‘when/if I turn it over’

Contingent: *ˀá' ÿax̣#qatánin* 'whenever I turn it over'

Iterative Imperfective: *ˀá' ÿax̣#x̣atánx̣* 'I turn it over (repeatedly); I keep turning it over'

Progressive Imperfective: *ˀá' ÿax̣#ÿa'#nx̣atán* 'I'm turning it over'

7.2.1.1.4. Telic derivational strings with yu'#(I)g-Iterative

The proclitic *yu'#* always takes the (I)g-iterative. It denotes oscillatory motion.

yu'# 'moving back and forth, to and fro'; *ÿan#yu'#* moving up and down
(from rest, from the ground)'

(68) Derivational string *ÿan#yu'#* (∅) 'moving up and down (from rest, from the ground)'

Perfective: *ÿan#yu'#x̣ʷa'tán* 'I lifted it up and down'[16]

Irrealis: *ÿan#yu'#x̣ʷata'n*

Future: *ÿan#yu'#(I)gʷqatá·n* 'I will lift it up and down'

Irrealis: *ÿan#yu'#(I)gʷqata'n*

Potential: *ÿan#yu'#qʷa'ta'n* 'I may lift it up and down'

Perfective Habitual: *ÿan#yu'#x̣ʷata'nǯ* 'I always lift it up and down'

Imperative: *ÿan#yu'#tán* 'lift it up and down!'

Hortative: *ÿan#yu'#qata'n* 'let me lift it up and down'

Admonitive: *ÿan#yu'#ˀi·tá·n#cé* 'see that you don't lift it up and down!'

Consecutive: *ÿan#yu'#x̣atá·n* 'when/after I lifted it up and down'

Conditional: *ÿan#yu'#x̣atánni'* 'when/if I lift it up and down'

Contingent: *ÿan#yu'#qatánin* 'whenever I lift it up and down'

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[16] Constructions with 'up and down', 'in and out', 'on and off', etc. pose a rather interesting challenge for the English lexicon in some cases. I have heard, for example, 'taking on and off (one's shirt)' and 'getting up and down' (i.e. getting up and sitting back down).

Iterative Imperfective: *ÿan#yu‘#x̣a‘táng* ‘I am lifting it up and down (repeatedly); I keep lifting it up and down’

7.2.1.1.5. Telic derivational strings with *ÿa-u·-* and ÿa‘#ǯ-Iterative

The derivational string common to this group is *ÿa-u·-* (0) ‘moving obliquely, circuitously’, denoting unbounded motion proceeding obliquely. A morphological peculiarity of this string is that the prefixes *ÿa-u·-* (of orders +5 and +4, respectively) are replaced by the proclitic *ÿa‘#* (of order +8) in the ǯ-Iterative. This string has not been found to occur by itself, but is always preceded by a PP.

PO-x̣ ‘moving obliquely, circuitously along PO’; *NO-da‘-x̣* ‘circling around NO’

PO-de‘ ‘moving obliquely, circuitously toward PO’; *ha‘n-dé·* ‘moving over this way (toward the speaker)’; *hé·-de‘* ‘moving over that way (away from the speaker); moving aside; getting out of the way’

PO-dáx̣ ‘moving obliquely, circuitously away from PO’; *PO-ʒika‘-dáx̣* ‘getting out of PO’s way’

PO-náx̣ ‘moving obliquely, circuitously by way of PO, through PO’

PO-x’ ‘moving obliquely, circuitously at PO; making the round of PO’; *NO-dasé-’* ‘exchanging, trading (places) with NO’

(69) Derivational string *hé·de‘ ÿa-u·-* (0) ‘moving over that way (away from the speaker); moving aside; getting out of the way’

Perfective: *hé·de‘ ÿax̣ʷa‘tán* ‘I moved it aside’

Irrealis: *hé·de‘ ÿax̣ʷata‘n*

Future: *hé·de‘ ÿagʷqatá·n* ‘I will move it aside’

Irrealis: *hé·de‘ ÿagʷqata‘n*

Potential: *hé·de‘ wu‘qa‘ta‘n* ‘I may move it aside’

Perfective Habitual: *hé·de‘ wu‘x̣ata‘nʒ* ‘I always move it aside’

Imperative: *hé·de‘ wu·tán ~ ÿatán* ‘move it aside!’

Hortative: *hé·de‘ wuqata‘n ~ ÿaqata‘n* ‘let me move it aside’

Admonitive: *hé·de‘#cé ÿi‘tá·n* ‘see that you don’t move it aside!’

Consecutive: *hé·de‘ wux̣atá·n ~ ÿax̣atá·n* ‘when/after I moved it aside’

Conditional: *hé·de‘ wux̣atánni‘ ~ ÿax̣atánni‘* ‘when/if I move it aside’

Contingent: *hé·de‘ wuqatánin ~ ÿaqatánin* ‘whenever I move it aside’

Iterative Imperfective: *hé·de‘ ÿa‘#x̣atánʒ* ‘I am moving it aside (repeatedly); I keep moving it aside’

Progressive Imperfective: *hé·de‘ ÿa‘#wunx̣atán ~ ÿa‘#ÿanx̣atán* ‘I am moving it aside’

7.2.1.1.6. Telic derivational string with *ÿa-u·-* and x̣-Iterative

The derivational string *ʔa-ÿa-(u·-)D+* (∅: x̣-Iter.) ‘turning back’ could be grouped with the above but for the fact that its Iterative is quite different: it takes the x̣-Iterative and the contraction of *ÿa-u·-* to *ÿa‘#* does not take place. Furthermore, the prefix *u·-* is optional for some speakers and entirely lacking for many.

(70) Theme *S-∅-gud** ‘single S walks, goes on foot’

Derivational string *ʔa-ÿa-(u·-)D+* (∅: x̣-Iter.) ‘turning back; reversing direction and returning’

Perfective: *ʔaÿax̣ʷdigúd* ‘I turned back’

Irrealis: *ʔaÿax̣ʷdagu‘d*

Future: *ʔaÿagʷqadagú·d* ‘I will turn back’

Irrealis: *ʔaÿagʷqadagu‘d*

Potential: *ˀawu‘qadigu‘d* ‘I may turn back’

Perfective Habitual: *ˀawu‘x̣dagu‘dʒ* ‘I always turn back’

Imperative: *ˀaÿi‘dagú* ‘turn back!’

Hortative: *ˀawuqadagu‘d* ~ *ˀaÿaqadagu‘d* ‘let me turn back’

Admonitive: *ˀaÿi‘dagú·d#cé* ‘see that you don’t turn back!’

Consecutive: *ˀawux̣dagú·d* ~ *ˀaÿax̣dagú·d* ‘when/after I turned back’

Conditional: *ˀawux̣dagúdni‘* ~ *ˀaÿax̣dagúdni‘* ‘when/if I turn back’

Contingent: *ˀawuqadagúďn* ~ *ˀaÿaqadagúďn* ‘whenever I turn back’

Iterative Imperfective: *ˀawux̣dagúdx̣* ~ *ˀaÿax̣dagúdx̣* ‘I am turning back (repeatedly); I keep turning back’

Progressive Imperfective: *ÿa‘#ˀawunax̣dagúd* ~ *ÿa‘#ˀaÿanax̣dagúd* ‘I am turning back’

7.2.1.2. Atelic derivational strings: na-aspect

7.2.1.2.1. Atelic derivational string: na-aspect with yu‘#(I)g-Iterative

The string -- (na) , which takes the yu‘#(I)g-Iterative, usually, but not necessarily, occurs with a preceding PP. It denotes unbounded motion proceeding directly.

-- ‘moving (along)’; *PO-x̣* ‘moving along PO’; *PO-de‘* ‘moving toward PO’; *PO-dáx̣* ‘moving away from PO’; *PO-náx̣* ‘moving by way of PO, through PO’

yux̣# ‘moving out of house’; *PO-x’ yux̣#* ‘moving out of house at PO’, especially in *ˀá-’ yux̣#* ‘moving out of house (there)’

(71) Derivational string *NO-de‘* (na) ‘moving (along) toward NO’

Perfective: *ˀa‘dé· x̣ʷa‘ta‘n* ‘I carried it toward it’

Irrealis: *ˀa‘dé· x̣ʷata‘n*

Future: *ˀa‘dé· gʷqatá·n* ‘I will carry it toward it’

Irrealis: *ˀa‘dé· gʷqata‘n*

Potential: *ˀa‘dé· ˀunqa‘ta‘n* ‘I may carry it toward it’

Perfective Habitual: *ˀa‘dé· nx̣atánǯ* ‘I always carry it toward it’

Imperative: *ˀa‘dé· nata‘n* ‘carry it toward it!’

Hortative: *ˀa‘dé· nqata‘n* ‘let me carry it toward it’

Admonitive: *ˀa‘dé·#cé ni·tá·n* ‘see that you don’t carry it toward it!’

Consecutive: *ˀa‘dé· nx̣atá·n* ‘when/after I carried it toward it’

Conditional: *ˀa‘dé· nx̣atánni‘* ‘when/if I carry it toward it’

Contingent: *ˀa‘dé· nqatánin* ‘whenever I carry it toward it’

Iterative Imperfective: *ˀa‘dé· yu‘#x̣a‘táng* ‘I carry it toward it (repeatedly); I keep carrying it toward it’

Progressive Imperfective: *ˀa‘dé· y̌a‘#nx̣atán* ‘I’m carrying it toward it’

7.2.1.2.2. Atelic derivational strings: na-aspect without Iterative

The following derivative, which we will refer to as the PERAMBULATIVE, is defective in that it has no Imperfective forms whatsoever. As noted in 8.2.1.2, the Perfective of the Perambulative is irregularly interpreted as present in tense and imperfective in aspect. The Perambulative denotes unbounded non-directed motion.

PO-d ‘moving about PO’; with PO *ˀá*: ‘moving about’

(72) Derivational string *PO-d* (na) ‘moving about PO’

Perfective: *ˀád x̣ʷa‘ta‘n* ‘I am carrying it about; I carried it about’

Irrealis: *ˀád x̣ʷata‘n*

Future: *ˀád kuqatá·n* ‘I will carry it about’

Irrealis: *ˀád kuqata‘n*

Potential: *ˀád ˀunqaʻtaʻn* ‘I may carry it about’

Perfective Habitual: *ˀád nax̣atánʒ* ‘I always carry it about’

Imperative: *ˀád nataʻn* ‘carry it about!’

Hortative: *ˀád naqataʻn* ‘let me carry it about’

Admonitive: *ˀád#cé ni·tá·n* ‘see that you don’t carry it about!’

Consecutive: *ˀád nax̣atá·n* ‘when/after I carried it about’

Conditional: *ˀád nax̣atánniʻ* ‘when/if I carry it about’

Contingent: *ˀád naqatánin* ‘whenever I carry it about’

Iterative Imperfective: (lacking)

Progressive Imperfective: (lacking)

7.2.1.3. Atelic derivational string: ga-aspect

The derivational string -- (ga) is semantically inceptive. As elsewhere, the proclitic *keʻ#* occurs as marker of ga-aspect in the Iterative, Progressive, and Future.[17] Although this string can occur without either a proclitic or a PP, it most frequently occurs with a preceding PP with the Ablative preposition ***PO-dáx̣*** ‘from PO’. This is perhaps because of the fact that this string is indistinguishable from the string -- (na) ‘moving along’ in the Perfective (see 7.2.1.2.1), so that the PP helps to disambiguate these two strings in the Perfective.[18]

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[17] Note that these forms with proclitic *keʻ#* are homophonous with forms with the string *keʻ#* (0) ‘moving up’.

[18] Compare *ˀax̣ nagú* ‘go away from there!’ and *ˀax̣ gagú* ‘get up from there and go!’.

-- ‘taking off; starting off, picking up’; *PO-dáx̣* ‘taking off from PO; starting off from PO; picking up from PO’, especially in *ˀa-‘x̣* ‘taking off from it; etc.’

(73) Derivational string *PO-dáx̣* (ga: ʒ-Iter.) ‘taking off from PO; starting off from PO; picking up from PO’, especially in *ˀa-‘x̣* ‘taking off from it; etc.’

Perfective: *ˀa‘x̣ x̣ʷa‘ta‘n* ‘I picked it up off it’

Irrealis: *ˀa‘x̣ x̣ʷata‘n*

Future: *ˀa‘x̣ ke‘#gʷqatá·n* ‘I will pick it up off it’

Irrealis: *ˀa‘x̣ ke‘#gʷqata‘n*

Potential: *ˀa‘x̣ gu‘qa‘ta‘n* ‘I may pick it up off it’

Perfective Habitual: *ˀa‘x̣ gax̣atánʒ* ‘I always pick it up off it’

Imperative: *ˀa‘x̣ gata‘n* ‘pick it up off it!’

Hortative: *ˀa‘x̣ gaqata‘n* ‘let me pick it up off it’

Admonitive: *ˀa‘x̣#cé gi·tá·n* ‘see that you don’t pick it up off it!’

Consecutive: *ˀa‘x̣ gax̣atá·n* ‘when/after I picked it up off it’

Conditional: *ˀa‘x̣ gax̣atánni‘* ‘when/if I pick it up off it’

Contingent: *ˀa‘x̣ gaqatánin* ‘whenever I pick it up off it’

Iterative Imperfective: *ˀa‘x̣ ke‘#x̣atánʒ* ‘I pick it up off it (repeatedly); I keep picking it up off it’

Progressive Imperfective: *ˀa‘x̣ ke‘#nx̣atán* ‘I’m picking it up off it’

7.2.1.4. Atelic derivational strings: ɢa-aspect

The ɢa-aspect derivational strings all denote motion downward. As elsewhere, the proclitic *ye‘#* occurs as marker of ɢa-aspect in the Iterative, Progressive, and Future.

ÿa‘# (zero allomorph before the aspect proclitic *ye‘#*) ‘moving down’

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ya‘x̣# ‘getting into canoe, boat, or other vehicle’[19]

ÿanax̣# ‘moving into the earth’[20]

PO-x̣ ‘moving down along PO’; *hí·n-x̣* ‘moving into the water’

PO-náx̣ ‘moving down by way of PO, through PO’

(74) Derivational string *ya‘x̣#* (Ga) ‘getting into boat or vehicle’

Perfective: *ya‘x̣#x̣ʷa‘ta‘n* ‘I took it aboard’

Irrealis: *ya‘x̣#x̣ʷata‘n*

Future: *ya‘x̣#ye‘#gʷqatá·n* ‘I will take it aboard’

Irrealis: *ya‘x̣#ye‘#gʷqata‘n*

Potential: *ya‘x̣#qʷa‘qa‘ta‘n* ‘I may take it aboard’

Perfective Habitual: *ya‘x̣#qatánǯ* ‘I always take it aboard’

Imperative: *ya‘x̣#ɢata‘n* ‘take it aboard!’

Hortative: *ya‘x̣#qa‘qata‘n* ‘let me take it aboard’

Admonitive: *ya‘x̣#cé ɢi·tá·n* ‘see that you don’t take it aboard!’

Consecutive: *ya‘x̣#qatá·n* ‘when/after I took it aboard’

Conditional: *ya‘x̣#qatánni‘* ‘when/if I take it aboard’

Contingent: *ya‘x̣#qa‘qatánín* ‘whenever I take it aboard’

Iterative Imperfective: *ya‘x̣#ye‘#x̣atánǯ* ‘I take it aboard (repeatedly); I keep taking it aboard’

Progressive Imperfective: *ya‘x̣#ye‘#nx̣atán* ‘I’m taking it aboard’

(75) Derivational string *ÿa‘#* (Ga: ǯ-Iter.) ‘going down’

Perfective: *ÿa‘#x̣ʷa‘ta‘n* ‘I carried it down’

Irrealis: *ÿa‘#x̣ʷata‘n*

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[19] Historically from *ya‘gw-x̣* [canoe-PERT].

[20] Historically from *ÿán-náx̣* [shore/*earth-PERL]

Future: *ye‘#gʷqatá·n* ‘I will carry it down’

Irrealis: *ye‘#gʷqata‘n*

Potential: *ÿa‘#qʷa‘qa‘ta‘n* ‘I may carry it down’

Perfective Habitual: *ÿa‘#qatánǯ* ‘I always carry it down’

Imperative: *ÿa‘#ɢata‘n* ‘carry it down!’

Hortative: *ÿa‘#qa‘qata‘n* ‘let me carry it down’

Admonitive: *ÿa‘#cé ɢi·tá·n* ‘see that you don't carry it down!’

Consecutive: *ÿa‘#qatá·n* ‘when/after I carried it down’

Conditional: *ÿa‘#qatánni‘* ‘when/if I carry it down’

Contingent: *ÿa‘#qa‘qatánin* ‘whenever I carry it down’

Iterative Imperfective: *ye‘#χatánǯ* ‘I carry it down (repeatedly); I keep carrying it down’

Progressive Imperfective: *ye‘#nχatán* ‘I'm carrying it down’

The ɢa-aspect can occur without preceding proclitic or PP with Nontransitive themes of uncontrolled motion, in which case it denotes falling.

(76) Theme *O-s+D-gid** ‘animate O falls, moves through space’

Derivational string -- (ɢa: ǯ-Iter.) ‘falling down’

Perfective: *χad-wuʒigi‘d* ‘I have fallen down, fell down’

Irrealis: *χad-wusgi‘d*

Future: *ye‘#χad-guɢasgí·d* ‘I will fall down’

Irrealis: *ye‘#χad-guɢasgi‘d*

Potential: *χad-ɢʷa‘χʒigi‘d* ‘I may fall down’

Perfective Habitual: *χad-ɢasgídǯ* ‘I always fall down’

Imperative: *ˀi-ɢasgi‘d* ‘fall down!’

Hortative: *χad-ɢa‘ɢasgi‘d* ‘let me fall down’

Admonitive: *ˀi-‘ɢasgi·d#cé* ‘see that you don't fall down!’

Consecutive: *x̣ad-ɢasgi·d* 'when/after I fell down'

Conditional: *x̣ad-ɢasgídni'* 'when/if I fall down'

Contingent: *x̣ad-ɢa'ɢasgídn* 'whenever I fall down'

Iterative Imperfective: *ye'#x̣ad-ʔisgídʒ* 'I fall down (repeatedly); I keep falling down'

Progressive Imperfective: *ye'#x̣ad-nasgíd* 'I'm falling down'

Another derivational string that denotes falling with this type of theme is *da'g#* (∅). Thus, for example, *da'g#x̣ad-wuʒigíd* is synonymous with *x̣ad-wuʒigi'd* 'I have fallen down, fell down'.

7.2.1.5. Derivational strings with incorporated nominals

As discussed in section 4.1.5, the combination of an aspectual derivational string plus an incorporated noun of order +5 may produce a whole that is semantically more or less specialized, i.e. different from the sum of its parts. These are cases where the motion crucially involves only part of an object; this part is specified by the incorporated noun. In most cases the incorporated noun is *ša-* 'head', which here refers to the top end of an upright object, but we also find *k'i-* 'butt, base', which refers to the bottom end of an upright object. In some cases, like (77) and (78), the meaning of the combination of aspectual derivational string plus incorporated nominal is relatively transparent.

(77) Derivational string *ÿan#* (∅) 'to rest' with incorporated *k'i-* 'butt, base': 'setting up (on the ground), erecting'

Perfective: *ÿan#k'ix̣ʷa'tán* 'I set it up (e.g. a post, by sticking it into the ground)'

Irrealis: *ÿan#k'ix̣ʷata'n*

Future: *ÿánde' k'igʷqatá·n* 'I will set it up'

Irrealis: *ÿánde‘ k’ig*^{w}*qata‘n*

Potential: *ÿan#k’i‘qa‘ta‘n* ‘I may set it up’

Perfective Habitual: *ÿan#k’i‘x̣ata‘nǯ* ‘I always set it up’

Imperative: *ÿan#k’itán* ‘set it up!’

Hortative: *ÿan#k’iqata‘n* ‘let me set it up’

Admonitive: *ÿan#k’i‘tá·n#cé* ‘see that you don’t set it up!’

Consecutive: *ÿan#k’ix̣atá·n* ‘when/after I set it up’

Conditional: *ÿan#k’ix̣atánni‘* ‘when/if I set it up’

Contingent: *ÿan#k’iqatánin* ‘whenever I set it up’

Iterative Imperfective: *ÿax̣ k’ix̣ata‘n* ‘I set it up (repeatedly); I keep setting it up’

Progressive Imperfective: *ÿánde‘ ÿa‘#k’inx̣atán* ‘I’m setting it up’

(78) Derivational string *ÿan#* (∅) ‘to rest’ with incorporated *ša-* ‘head’: ‘setting up (leaning against something)’

Perfective: *ÿan#šax̣*^{w}*a‘tán* ‘I set it up (e.g. a post, by leaning it against the wall)’

Irrealis: *ÿan#šax̣*^{w}*ata‘n*

Future: *ÿánde‘ šag*^{w}*qatá·n* ‘I will set it up’

Irrealis: *ÿánde‘ šag*^{w}*qata‘n*

Potential: *ÿan#ša‘qa‘ta‘n* ‘I may set it up’

Perfective Habitual: *ÿan#ša‘x̣ata‘nǯ* ‘I always set it up’

Imperative: *ÿan#šatán* ‘set it up!’

Hortative: *ÿan#šaqata‘n* ‘let me set it up’

Admonitive: *ÿan#ši‘tá·n#cé* ‘see that you don’t set it up!’

Consecutive: *ÿan#šax̣atá·n* ‘when/after I set it up’

Conditional: *ÿan#šax̣atánni‘* ‘when/if I set it up’

Contingent: *ÿan#šaqatánin* ‘whenever I set it up’

Iterative Imperfective: *ÿax̣ šax̣ata‘n* ‘I set it up (repeatedly); I keep setting it up’

Progressive Imperfective: *ÿánde‘ ÿa‘#šanx̣atán* ‘I'm setting it up’

In other cases like (79) and (80), the combination of aspectual derivational string plus incorporated noun is highly lexicalized. In these cases, the aspectual derivational string may not occur as such without the incorporated noun, and their combination is both semantically opaque and lexically restricted, occurring with only a few themes.

káx̣ (Ga) with incorporated *ša-* ‘head’: ‘falling over, prone’

PO-x̣ ÿa-u·- (0) with incorporated *ša-* ‘head’: ‘hanging up at PO’; with *ÿax̣#* for *PO-x̣*: ‘hanging up’

(79) Theme *O-S-Ø-*Gi*x'** (Motion) ‘S handles single unclassified O abruptly, with lack of control’

Derivational string *káx̣* (G*a) with incorporated* *ša-* ‘head’: ‘falling over, prone’

Perfective: *káx̣ šax̣*^{w}*a‘*Gí'x' ‘I knocked it over’

Irrealis: *káx̣ šax̣*^{w}*a*Gí'x'

Future: *káx̣ ye‘#šag*^{w}*qa*Gí·*x'* ‘I will knock it over’

Irrealis: *káx̣ ye‘#šag*^{w}*qa*Gí'x'

Potential: *káx̣ ša‘qa‘qa‘*Gí'x' ‘I may knock it over’

Perfective Habitual: *káx̣ šaqa*Gix'ʒ ‘I always knock it over’

Imperative: *káx̣ ša*G*a*Gí'x' ‘knock it over!’

Hortative: *káx̣ šaqa‘qa*Gí'x' ‘let me knock it over’

Admonitive: *káx̣#cé ša*Gi·Gí·*x'* ‘see that you don't knock it over!’

Consecutive: *káx̣ šaqa*Gí·*x'* ‘when/after I knocked it over’

Conditional: *káx̣ šaqa*Gix'*ni‘* ‘when/if I knock it over’

Contingent: *káx̣ šaqa‘qa*Gix'*in* ‘whenever I knock it over’

Iterative Imperfective: *káx̣ ye‘#šax̣a*Gix'ʒ ‘I knock it over (repeatedly); I keep knocking it over’

Progressive Imperfective: *káx̣ ye‘#šanx̣aɢíx’* ‘I'm knocking it over’

(80) Theme *O-S-∅-ti*‘* ‘S handles single unclassified O’

Derivational string *ÿax̣#ÿa-u·-* (∅) with incorporated *ša-* ‘head’: ‘hanging up’

Perfective: *ÿax̣#šaÿax̣ʷa‘t́i·* ‘I hung it up’

Irrealis: *ÿax̣#šaÿax̣ʷati‘*

Future: *ÿax̣#šaÿagʷqat́i·* ‘I will hang it up’

Irrealis: *ÿax̣#šaÿagʷqati‘*

Potential: *ÿax̣#šawu‘qa‘t́i‘* ‘I may hang it up’

Perfective Habitual: *ÿax̣#šawu‘x̣ati‘ʒ* ‘I always hang it up’

Imperative: *ÿax̣#šawu·t́i* ‘hang it up!’

Hortative: *ÿax̣#šawuqati‘* ‘let me hang it up’

Admonitive: *hé·de‘#cé ÿi·t́i·* ‘see that you don't hang it up!’

Consecutive: *ÿax̣#šawux̣at́i·* ‘when/after I hung it up’

Conditional: *ÿax̣#šawux̣at́i·ni‘* ‘when/if I hang it up’

Contingent: *ÿax̣#šawuqat́i·nin* ‘whenever I hang it up’

Iterative Imperfective: *ÿax̣#ÿa‘#šax̣ati‘ʒ* ‘I am hanging it up (repeatedly); I keep hanging it up’

Progressive Imperfective: *ÿax̣#ÿa‘#šawunx̣at́i·n* ‘I am hanging it up’

7.2.1.6. Epiaspectual paradigms

The following illustrate the conjugation of the epiaspectual paradigms whose Imperfectives are given above. As previously noted, the Progressive paradigm takes the ga-aspect marker except in the Imperfective, which quite irregularly takes a na-aspect marker (elsewhere only Extensional and Multiple-Positional Imperfectives take an aspect marker). The Perfective Progressive is lacking. It always has a directional proclitic, which it retains throughout the paradigm. The stem variation is that of an Atelic verb.

Progressive:

(81) Derivational string -- (na) ‘moving along’:

Imperfective: *ÿa‘#nx̣atán* ‘I’m carrying it (along)’

Irrealis: *ÿa‘#nx̣ʷatán*

Future: *ÿa‘#gʷqatá·n* ‘I will carry it (along)’

Irrealis: *ÿa‘#gʷqata‘n*

Potential: *ÿa‘#gu‘qa‘ta‘n* ‘I may carry it (along)’

Perfective Habitual: *ÿa‘#gx̣atánǯ* ‘I always carry it (along)’

Imperative: *ÿa‘#gata‘n* ‘carry it (along)!’

Hortative: *ÿa‘#gqata‘n* ‘let me carry it (along)’

Admonitive: *ÿa‘#gi·tá·n#cé* ‘see that you don’t carry it (along)!’

Consecutive: *ÿa‘#gx̣atá·n* ‘when/after I carried it (along)’

Conditional: *ÿa‘#gx̣atánni‘* ‘when/if I carry it (along)’

Contingent: *ÿa‘#gqatánin* ‘whenever I carry it (along)’

Derivational string *hé·de‘ ÿa-u·-* (0) ‘moving aside’:

Imperfective: *ÿa‘#wunx̣atán* ~ *ÿa‘#ÿanx̣atán* ‘I’m moving it aside’

Irrealis: *ÿa‘#wu‘nx̣atán*

Future: *ÿa‘#ÿagʷqatá·n* ‘I will be moving it aside’

Irrealis: *ÿa‘#ÿagʷqata‘n*

Potential: *ÿa‘#ÿagu‘qa‘ta‘n* ‘I may be moving it aside’

Perfective Habitual: *ÿa‘#ÿagx̣atánǯ* ‘I am always moving it aside’

Imperative: *ÿa‘#ÿagata‘n* ‘be moving it aside!’

Hortative: *ÿa‘#ÿagqata‘n* ‘let me be moving it aside’

Admonitive: *ÿa‘#ÿagi·tá·n#cé* ‘see that you aren’t moving it aside!’

Consecutive: *ÿa‘#ÿagx̣atá·n* ‘when/after I was moving it aside’

Conditional: *ÿa‘#ÿagx̣atánni‘* ‘when/if I am moving it aside’

Contingent: *ÿa‘#ÿagqatánín* ‘whenever I am moving it aside’

The Iterative paradigm takes the na-aspect marker. It retains its characteristic proclitics, prefixes, and Iterative stem throughout the paradigm. The following is the paradigm of the Iterative of both *ke‘#* (0) ‘moving up’ and -- (ga) ‘taking off; starting off, picking up’; these both take the ke‘#ǯ-Iterative.

(83) **Iterative:**

Imperfective: *ke‘#x̣a‘tánǯ* ‘I keep lifting it up’

Irrealis: *ke‘#x̣ʷatánǯ*

Perfective: *ke‘#x̣ʷa‘tánǯ* ‘I kept lifting it up’

Irrealis: *ke‘#x̣ʷatánǯ*

Future: *ke‘#gʷqatánǯ* ‘I will keep lifting it up’

Irrealis: *ke‘#gʷqatánǯ*

Potential: *ke‘#ʔunqa‘tánǯ* ‘I may keep lifting it up’

Perfective Habitual: *ke‘#nx̣atánǯi#nu‘ǯ* ‘I always keep lifting it up’

Imperative: *ke‘#natánǯ* ‘keep lifting it up!’

Hortative: *ke‘#nqatánǯ* ‘let me keep lifting it up’

Admonitive: *ke‘#ni·tánǯ#cé* ‘see that you don’t keep lifting it up!’

Consecutive: *ke‘#nx̣atánǯi#ní·gʷ* ‘when/after I tried lifting it up’

Conditional: *ke‘#nx̣atánǯi#nígʷni‘* ‘when/if I keep lifting it up’

Contingent: *ke‘#nqatánǯi#ɢanígún* ‘whenever I keep lifting it up’

Motion themes referring to motion of an entity that is not specified as singular usually have Multiple-iterative paradigms; in most cases this paradigm is characterized by the x'-stem.

(84) Theme *O-ÿa-S-∅-x̣a*·* (Motion: x'-Mult-iter.) 'S ferries O, carries O by boat'

Multiple-Iterative:

Imperfective: *ÿax̣ax̣á·xʷ* 'I am ferrying them (in loads)'

Irrealis: *wu‘x̣ax̣á·xʷ*

Perfective: *ÿax̣ʷa‘x̣á·xʷ* 'I ferried them'

Irrealis: *ÿax̣ʷax̣á·xʷ*

Future: *ÿagʷqax̣á·xʷ* 'I will ferry them'

Irrealis: *ÿagʷqax̣á·xʷ*

Potential: *wu‘nqa‘x̣á·xʷ* 'I may ferry them'

Perfective Habitual: *ÿanx̣ax̣á·xʷʒ ~ ÿanx̣ax̣á·xʷ#nu‘ʒ* 'I always ferry them'

Imperative: *ÿanax̣á·xʷ* 'ferry them!'

Hortative: *ÿanqax̣á·xʷ* 'let me ferry them'

Admonitive: *ÿani·x̣á·xʷ#cé* 'see that you don't ferry them!'

Consecutive: *ÿanx̣ax̣á·xʷ ~ ÿanx̣ax̣á·xʷ#ní·gʷ* 'when/after I ferried them'

Conditional: *ÿanx̣ax̣á·xʷni‘ ~ ÿanx̣ax̣á·xʷ#nígʷni‘* 'when/if I ferry them'

Contingent: *ÿanqax̣á·x'ún ~ ÿanqax̣á·xʷ#ɢanígún* 'whenever I ferry them'

The Conative is a rare and poorly attested type of Durative epiaspect; I have been unable to ascertain to what extent Conative paradigms can be formed from aspectual derivatives, and have only found and been able to elicit Imperfective forms of Conatives. The Conative Imperfective is characterized by the preverb *ÿax̣#*, the ÿ-stem for closed roots but the '-stem for open roots, and the (+I) component in the Assertive Realis Imperfective.

(85) **Conative:**

Imperfective: *ÿax̣#x̣a‘tán* 'I am trying to lift it up'

Irrealis: *ÿax̣#x̣ʷatán*

7.2.2. Motion themes with Extensional Imperfective

The Extensional Imperfective characteristically occurs with Motion themes. Like other Stative Imperfectives, this form takes the +I component of the classifier in the Assertive Realis; what makes it unique is that it also takes the aspect marker specified by the aspectual derivational string that occurs with the theme. Extensional Imperfectives may thus be subdivided into aspectual groups mirroring those of the aspectual derivational strings.

Only one theme is attested with the full range of Extensional Imperfectives. This is *O-∅-šu*'*(Motion: Ext. ÿ-Stat.) 'O extends'. A few aspectual derivational strings do not occur with the Extensional Imperfective; those known to me are the Perambulative *PO-d* (na) 'moving about at PO' and *yu'#* (∅) 'moving back and forth, etc.'. The following examples illustrate the existing aspectual groups of Extensional Imperfectives.

(86) Derivational string *ke'#* (∅) 'going/coming up'

Stative Imperfective: *ke'#ÿašú·* 'it extends up'

Irrealis: *ke'#ˀušú*

(87) Derivational string *ÿan#* (∅) 'going/coming ashore, to rest'

Stative Imperfective: *ÿan#ÿašú·* 'it extends ashore, to rest'

Irrealis: *ÿan#ˀušú*

(88) Derivational string *PO-d* (∅) 'arriving at PO'

Stative Imperfective: *ˀád ÿašú·* 'it extends to it'

Irrealis: *ˀád ˀušú*

(89) Derivational string *PO-x̧ ÿa-u·-* (∅) 'moving around PO'

Stative Imperfective: *ˀáx̣ wuwašú·* ‘it extends around it’

Irrealis: *ˀáx̣ wu‘šú*

(90) Derivational string (*PO-de‘*) (na) ‘moving along toward PO’

Stative Imperfective: *(ˀa‘dé·) na‘šú·* ‘it extends (toward it)’

Irrealis: *(ˀa‘dé·) ˀúnašú*

(91) Derivational string (*PO-dáx̣*) (ga) ‘taking off; starting off; going away; picking up (from PO)’

Stative Imperfective: *(ˀa‘x̣) ga‘šú·* ‘it extends off, away (from it)’

Irrealis: *(ˀa‘x̣) gu‘šú*

(92) Derivational string *PO-x̣#* (ɢa) ‘moving down along PO’

Stative Imperfective: *ˀáx̣#ɢa‘šú·* ‘it extends down along it’

Irrealis: *ˀáx̣#ɢʷašú*

(93) Derivational string *ÿa‘#* (ɢa) ‘going down’

Stative Imperfective: *ÿa‘#ɢa‘šú·* ‘it extends down’

Irrealis: *ÿa‘#ɢʷašú*

Of the aspectual derivational strings that are possible with the Extensional Imperfective, only two occur at all frequently, and these two appear to be the only ones that occur freely with Motion themes:

-- (na) ‘moving along’

PO-x̣ (ɢa) ‘moving down along PO’

We may call these the na-Extensional and the ɢa-Extensional, respectively.

Even with the theme *O-∅-šu*·* ‘O extends’, aspectual derivational strings other than these two rarely occur in the Extensional Imperfective. The other Extensional Imperfectives are usually with this theme, and always with other themes, supplanted by the Perfective. For example, a more common way of saying ***ke‘#ÿašú·***

is *ke‘#ˀuwašú·* ‘it extends up’. Note that the Perfective here has the resultative interpretation, like Perfectives of Involuntary Eventive verbs. And indeed, this appears to be a synchronically observable instance of what must have happened diachronically with other themes where the Stative Imperfective has been lost and supplanted semantically by the Perfective.[21]

Motion themes denoting motion of a group or mass regularly take na- and ɢa-Extensional Imperfectives with the ‘-stem. These forms are by far most frequently seen with the theme *O-∅-da**·(Motion) ‘O flows’, illustrated in (94), but are also quite productive with other themes of this type, as seen in (95).

(94) Theme *O-∅-da**· (Motion) ‘O flows’

na-Extensional Imperfective: *(ˀa‘dé·) na‘da‘* ‘it flows (toward it)’

Irrealis: *(ˀa‘dé·) ˀunada‘*

ɢa-Extensional Imperfective: *ˀáx̜* ɢ*a‘da‘* ‘it flows down along it’

Irrealis: *ˀáx̜* ɢʷ*ada‘*

(95) Theme *O-S-ˀad** (Motion) ‘plural S walk, go on foot’

na-Extensional Imperfective: *(ˀa‘dé·) has-na‘ˀa‘d* ‘they extend in a line walking (toward it)’

Irrealis: *(ˀa‘dé·) ˀunaˀa‘d*

ɢa-Extensional Imperfective: *ˀáx̜ has-*ɢ*a‘ˀa‘d* ‘they extend in a line walking down along it’

Irrealis: *ˀáx̜* ɢʷ*aˀa‘d*

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[21] One might well wonder why the na-Extensional and Ga-Extensional are not likewise supplanted by the Perfective. The answer may lie in the fact that the Atelic aspects are not formally distinguished in the Perfective, whereas in the Extensional Stative Imperfective, they are. Thus, for example, the Extensional Stative Imperfectives *na‘šú·*, ɢ*a‘šú·*, and *ga‘šú·* all correspond to the undifferentiated Perfective *wu‘šu‘*. Note, however, that the Perfective *wu‘da‘* is used interchangeably with the Extensional Stative Imperfective *na‘da‘* ‘it flows’.

7.2.3. Dimensional themes with Extensional Imperfective

This type of theme is formally quite similar to the Dimensional theme discussed in 7.1.1.2, except that it takes the Extensional Imperfective. There are only two antonymic pairs of themes in this category. The first, referring to distance, is attested with not only na-Extensional and ɢa-Extensional Imperfectives, as seen in (96) and (98), but also the derivational string given in (99), and perhaps others.

(96) Theme *O-∅-łi*‘/łe*‘* (Motion: Ext. ÿ-Stat.) ‘O is far’

Perfective: *wu‘łi‘* ‘it became far’

Irrealis: *wułi‘*

Future: *gu*ɢ*ałi·* ‘it will be(come) far’

Irrealis: *gu*ɢ*ałi‘*

Potential: *ʔun*ɢ*a‘łi‘* ‘it may be(come) far’

Perfective Habitual: *nałi‘ʒ* ‘it always is/becomes far’

Imperative: *ʔi-nałí* ‘be far!’

Hortative: *na*ɢ*ałi‘* ‘let it be far’

Admonitive: *ʔunałí·#cé* ‘see that it isn’t far!’

Consecutive: *nałí·* ‘when/after it was/became far’

Conditional: *nałí·ni‘* ‘when/if it is/becomes far’

Contingent: *na*ɢ*ałí·nín* ‘whenever it is/becomes far’

Primary Imperfective: *na‘łí·* ‘it is far’

Irrealis: *ʔunałí*

Impf. Habitual: *nałí·#nu‘ʒ* ‘it is always far’

Iterative Imperfective: (?)

Progressive Imperfective: *ÿa‘#nałí·n* ‘it is becoming far’

(97) Comparative *MANNER O-ka-ū-∅-łi*‘/łe*‘* (Motion: Ext. ÿ-Stat.) ‘O is so far’

Perfective: *yé’#ka‘wałi‘* ‘it became so far’

Irrealis: *yé’#kawułi‘*

Future: *yé’#kagʷɢaƛi·* ‘it will be(come) so far’

Irrealis: *yé’#kagʷɢałi‘*

Potential: *yé’#ku‘nɢa‘ƛi‘* ‘it may be(come) so far’

Perfective Habitual: *yé’#kunałi‘ʒ* ‘it always is/becomes so far’

Imperative: *yé’#ʔi-kunaƛi* ‘be so far!’

Hortative: *yé’#kunɢałi‘* ‘let it be so far’

Admonitive: *yé’#cé ku‘naƛi·* ‘see that it isn’t so far!’

Consecutive: *yé’#kunaƛi·* ‘when/after it was/became so far’

Conditional: *yé’#kunaƛi·ni‘* ‘when/if it is/becomes so far’

Contingent: *yé’#kunɢaƛi·nín* ‘whenever it is/becomes so far’

Primary Imperfective: *yé’#kuna‘ƛi·* ‘it is so far’

Irrealis: *yé’#kụ‘naƛi*

Impf. Habitual: *yé’#kunaƛi·#nu‘ʒ* ‘it is always so far’

Iterative Imperfective: (?)

Progressive Imperfective: *yé’#ÿa‘#kunaƛi·n* ‘it is becoming so far’

(2) Derivational string *PO-x̣#* (ɢa: ʒ-Iter.) ‘moving down along PO’

Primary Imperfective: *ʔáx̣* ɢ*a‘ƛi·* ‘it is far down along it’

Irrealis: ɢʷ*aƛi*

(3) Derivational string *PO-x̣ ÿa-u·-* (∅) ‘moving around PO’

Stative Imperfective: *ʔáx̣ wuwaƛi·* ‘it is far around it (used e.g. of distance along a shoreline)’

Irrealis: *ʔáx̣ wu‘ƛi*

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The next theme, which refers to depth, occurs only with the ɢa-Extensional Imperfective (which in this case can occur without *PO-χ*):

(100) Theme *O-∅-λan** (Motion: ɢa-Ext. ‘-Stat.) ‘O is deep’

Perfective: *wu‘λa‘n* ‘it became deep’

    Irrealis: *wuλa‘n*

Future: *ye‘#g*^{w}ɢ*aλá·n* ‘it will be(come) deep’

    Irrealis: *ye‘#g*^{w}ɢ*aλa‘n*

Potential: ɢ^{w}*a‘*ɢ*a‘λa‘n* ‘it may be(come) deep’

Perfective Habitual: ɢ*aλánʒ* ‘it always is/becomes deep’

Imperative: *ˀi-*ɢ*aλa‘n* ‘be deep!’

Hortative: ɢ*a‘*ɢ*aλa‘n* ‘let it be deep’

Admonitive: ɢ^{w}*aλá·n#cé* ‘see that it isn’t deep!’

Consecutive: ɢ*aλá·n* ‘when/after it was/became deep’

Conditional: ɢ*aλánni‘* ‘when/if it is/becomes deep’

Contingent: ɢ*a‘*ɢ*aλánin* ‘whenever it is/becomes deep’

Primary Imperfective: ɢ*a‘λa‘n* ‘it is deep’

    Irrealis: ɢ^{w}*aλa‘n*

    Impf. Habitual: ɢ*aλan#nu‘ʒ* ‘it is always deep’

Iterative Imperfective: *ye‘#λánʒ* ‘it always becomes deep’

Progressive Imperfective: *ye‘#naλán* ‘it is becoming deep’

7.2.4. Motion themes with Positional Imperfective

The Positional derivational string is defective in that it occurs only in the Imperfective mode. Positional Imperfectives are usually paired with related themes which supply the corresponding non-Imperfective forms. Most Classificatory transitive themes of controlled motion (see 7.2) have corresponding pairs of intransitive themes that denote being at rest or coming to rest. These themes occur in a hybrid paradigm where the Imperfective mode is supplied by the theme plus the Positional derivational string, and the semantically corresponding non-Imperfective modes are supplied by a base consisting of the Motion theme plus the derivational string *ÿan#* (0) 'coming to rest' (see 7.2.1.1.2). The Positional derivational string is

-- (Positional Impf.) 'being at rest'; with bound *PO-d* 'being at rest at PO'

(101) Theme: *O-∅-tan** (Motion: n-Pos.) 'wooden O (vessel, container) assumes position (is in position: lying, sitting, standing)'

Perfective: *ˀá' ÿan#ˀuwatán* 'it came to rest there'

Irrealis: *ˀá' ÿan#wuta‘n*

Future: *ˀá' ÿánde‘ g^wGatá·n* 'it will come to rest there'

Irrealis: *ˀá' ÿánde‘ g^wGata‘n*

Potential: *ˀá' ÿan#G^wa‘ta‘n* 'it may come to rest there'

Perfective Habitual: *ˀá' ÿan#ˀuta‘nʒ* 'it always comes to rest there'

Imperative: (lacking)

Hortative: *ˀá' ÿan#Gata‘n* 'let it come to rest there'

Admonitive: (lacking)

Consecutive: *ˀá' ÿan#tá·n* 'when/after it came to rest there'

Conditional: *ˀá' ÿan#tánni‘* 'when/if it comes to rest there'

Contingent: *ˀá' ÿan#Gatánin* 'whenever it comes to rest there'

Positional Imperfective: *ˀád tán* 'it is at rest there, lying there, sitting there'

Irrealis: *ˀád ˀután*

Iterative Imperfective: *ʔá' ÿax̣#ta'n* 'it comes to rest there (repeatedly); it keeps coming to rest there'

Progressive Imperfective: *ʔá' ÿánde' ÿa'#natán* 'it's coming to rest there'

(102) Theme: *O-∅-ti*•· (Motion: n-Pos.) 'unclassified O assumes position, lies'

Positional Imperfective: *ʔád tí·n* 'it is at rest there, lying there, sitting there'

Irrealis: *ʔád ʔutí·n*

Perfective: *ʔá' ÿan#ʔuwatí·* 'it came to rest there'

Irrealis: *ʔá' ÿan#wuti'*

etc.

Other theme clusters are less predictable:

(103) Themes *S-∅-nug*• (Motion: ·-Pos. with stem *-ʔa*•) 'single S moves sitting (is sitting)'; *S-∅-nug*• (Ga: Event.) 'single S sits down'

Positional Imperfective: *ʔád ʔá·* 'he/she is sitting there'

Irrealis: *ʔád ʔuʔa'*

(104) Themes *S-∅-qi*•· (Motion: ·-Pos. with stem *-qin*•) 'plural S move sitting (are sitting)'; *S-∅-qi*•· (Ga: Event.) 'plural S sit down'

Positional Imperfective: *ʔád has-qí·n* 'they are sitting there'

Irrealis: *ʔád has-ʔuqi'n*

(105) Themes *S-∅-han*• (Motion: n-Pos.) 'single S moves standing (is standing)'; *S-∅+D-han*• (ga: Event.) 'single S stands up'

Positional Imperfective: *ʔád hán* 'he/she is standing there'

Irrealis: *ʔád ʔuhán*

A similar relationship holds between the corresponding plural themes *S-∅-naG*• (Motion: n-Pos.) 'plural S move standing (are standing)' and *S-∅+D-naG*•(ga: Event.) 'plural S stand up'.

The pair of themes given in (106), together with their plural equivalents, are unique in several respects. First, they are the only examples where a Positional theme is paired with a na-Eventive theme. Second, they are semantically atypical in that they do not denote a physical configuration. Third, (106) provides the only example of the Positional Imperfective with ’-stem. If it were not for the fact that this Imperfective takes a Punctual local argument (see below), we would classify this theme as ’-Processive instead.

(106) Themes *S-∅-ta*•‘ (Motion: ’-Pos.) ‘single S moves in sleep (is asleep)’; *S-∅-ta*•‘ (na: Event.) ‘single S sleeps, goes to sleep’

Positional Imperfective: *ˀád tá* ‘he/she is sleeping there’

Irrealis: *ˀád ˀutá*

The plural counterparts to these themes are *S-∅-x̧ex*$^{w'}$•(’-Pos.) ‘plural S sleep’ and *S-∅-x̧ex*$^{w'}$•(na: Event.) ‘plural S sleep, go to sleep’.

The stem variation in the Positional Imperfective of open roots is frequently irregular, as seen in (103) and (104). Note particularly that some roots, such as that of (102), take the n-stem in the Positional Imperfective; while others, such as that of (104), have special Positional roots with *-n* added to the usual root, and take ·-Imperfective stem variants.

The Positional Imperfective resembles a Processive Imperfective in that it takes no aspect prefix and lacks the I-component of the classifier; moreover, Positional Imperfectives with ·-stem and ’-stem variants are morphologically indistinguishable from the corresponding Processive Imperfectives. There is a compelling reason, however, for distinguishing between them: the special status of the Punctual PP *PO-d* with regard to the Positional Imperfective. This PP resembles that of the derivational string *PO-d* (Ø) ‘arriving at PO’ in that (a) it is bound to the verb and (b) it has a special meaning in construction with the Positional Imperfective. Specifically, the Punctual postposition *-d* has locative meaning here; furthermore, the Locative postposition, which elsewhere has locative meaning, cannot occur with the Positional Imperfective.

(107) *ʔá-d/*ʔá-x’ tán* (Positional Imperfective) ‘it (wooden object) is at rest there’

(108) *ʔá-x’/*ʔá-d yé’#ÿati‘* (Stative Imperfective) ‘it is there’

(109) *ʔá-x’/*ʔá-d yé’#ʒiné* (Processive Imperfective) ‘he/she is working there’

We therefore conclude that here, as in the derivational string *PO-d* (Ø) ‘arriving at PO’, *PO-d* is a bound phrase, specifically a local argument. Processive themes, in contrast, never take local arguments.

Themes with Positional Imperfectives denoting that a group or mass is at rest also occur with a **Multiple-Positional Imperfective,** which denotes that the group or mass is distributed among various locations. This is a Stative Imperfective that takes the na-aspect marker and the suffix *-g* (after a consonant) or *-gʷ-d* (after a vowel), and always occurs with a preceding Pertingent local argument *PO-x̣*.

(110) Theme *O-∅-da*·* (Motion: Ext. ‘-Stat., n-Pos., Mult.-Pos. Impf. with stem *-dágʷd*) ‘O flows’

Positional Imperfective: *ʔád dé·n* ‘(body of water) is lying there’

Irrealis: *ʔád ʔudé·n*

Multiple-Positional Imperfective: *ʔáx̣ na‘dágʷd* ‘(bodies of water) lie here and there along it’

Irrealis: *ʔáx̣ ʔunadágʷd*

With the Positional Imperfective *(ˀád) dé·n* ‘it is lying (there)’ compare the Extensional Imperfective *(ˀa‘dé·) na‘da‘* ‘it is flowing (toward there)’.

(111) Theme *O-ł-ˀad** (Motion: Ext. ‘-Stat., n-Pos., Mult.-Pos.) ‘plural inanimate O or unconscious/dead animate O are at rest, come to rest’

Positional Imperfective: *ˀád łaˀád* ‘they are lying there’

Irrealis: *ˀád ˀułˀád*

Multiple-Positional Imperfective: *ˀą́x nałiˀádg* ‘they lie here and there along it’

Irrealis: *ˀą́x ˀunałˀádg*

CHAPTER 8

SEMANTIC PROPERTIES OF THE INFLECTIONAL SCHETIC CATEGORIES

In the following discussion of the semantics of Tlingit schetic categories, I will draw heavily on examples from the available corpus of Tlingit oral literature.[1] Evidence for the semantic contrasts involved can sometimes be obtained by direct questioning, but even linguistically sophisticated speakers tend to evaluate the contrasts in terms of their English translations. I have therefore based much of the discussion on the more elusive properties of schetic categories on a study of the way these categories are used in context.

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[1] The following abbreviations refer to frequently-cited sources:

JRS09: Swanton 1909.
N-S: Naish 1966 and Story 1966.
WS: Walter Soboleff, p.c.
EN: Elizabeth Nyman, p.c.
W-W-L: Williams, Williams, and Leer 1978.
D-D1: Dauenhauer and Dauenhauer 1987.
D-D2: Dauenhauer and Dauenhauer 1990.
N-L: Nyman and Leer forthcoming.

The last four sources comprise the bulk of the text corpus from which examples in context were drawn; examples are identified by a capital letter abbreviation for the specific text, followed by the line number(s). W-W represents Tongass Tlingit (Ketchikan); N-L represents Interior Tlingit (Atlin); and D-D mainly represents Greater Northern Tlingit, the only exceptions being D-D1 F, which is Transitional Northern Tlingit (Kake), and D-D1 H, which is Interior Tlingit (Teslin).

The following discussion of schetic categories, and the system semantic operators proposed to handle them, is to some degree tentative and incomplete. I have chosen to mention only with those operators necessary to deal with the formal system of inflectional schetic categories. The interrogative category, for example, is not discussed at all simply because it is expressed by a clitic and has no effect on the verb form. My purpose here is to describe and analyze the schetic categories particular to Tlingit in broad semantic terms rather than to devise a way of reducing them to their logical atoms. I therefore take the liberty of introducing some of the schetic operators informally, without attempting to provide rigorous definitions for them.

8.1. The schetic operators

The semantic components of the inflectional schetic categories will here be represented by natural-language semantic operators that I will call SCHETIC OPERATORS. In many respects, these operators can be treated like those of formal logic, but there are some cases where we should make allowance for the probability that the logic of natural language is not equatable with formal logic. For example, the semantic operators proposed here take as their argument not a proposition or the function of a proposition, but what Comrie calls a SITUATION (i.e. a state, event, or process) or the function of a situation. The reason for this is that in evaluating truth conditions over time, we do not, like computers, constantly at minute intervals check the truth-value of a proposition. We rather look for change of situation. The parameters by which we judge a change of situation to have taken place are necessary somewhat gross and subject to some degree of individual variation. They also depend on shared knowledge and ability to predict intention. Therefore I will maintain that the situation, rather than the proposition, is the appropriate domain for natural-language operators. For further discussion, see sections 8.2.1.1, 8.2.1.2, and 8.3.2.1.

Furthermore, these schetic operators are defined so as to be combinable in the same way that schetic categories are combined in natural language. For example, Dowty (1979:323ff.) has pointed out that for the purposes of formal logic, it is most convenient to treat tense operators as taking time variables rather than propositions as arguments, so that the sentence 'John will leave' would be represented roughly as (1) rather than (2) (where S represents a particular instance of **leave'**(*j*), i.e. 'John leaves').[2]

(1) FOR-ALL t, (FUT(t) AND AT(t, S)), i.e. 'for all times t, t is in the future and S is true at t.'[3]

(2) FUT'(S)

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[2] I am not sure I fully understand Dowty's argument on this point. For the sentence 'John left yesterday', where there are two indicators of time (PAST and 'yesterday'), he argues that the combination of these two cannot be successfully treated as the result of combining operators, e.g. as **yesterday'**(PAST(S)) leave')) or as PAST(**yesterday'**(S). But why can this not be treated as a conjunction: **yesterday'**(S) AND PAST(S)?

[3] I will here use what I hope are self-evident capital-letter abbreviations in place of the logical operator symbols, e.g. AND, IF, and FOR-ALL.

Formulating tense as in (1) may indeed make life simpler for formal logicians, but (2) more directly corresponds to linguistic form; moreover, a formulation like (2) is easier to interpret than (1) when nested in a series of semantic operators, e.g.

(3) DECLAR(POT(FUT(S))) 'John may leave' (i.e. roughly 'I declare that it may be the case that John will leave').[4]

8.1.1. Deictic indexation of schetic operators

A crucial feature of the present analysis is the hypothesis that a subset of the schetic operators have inherent DEICTIC INDICES. This hypothesis is not new; the leading idea is succinctly expounded in McCawley (1981:341):

> A third possiblity is to treat times as 'indices': just as a proposition is not flatly true or flatly false but is true in certain worlds and false in others, a proposition would be true at some times and false at other times. 'Now' would have the same special role among the time indices that 'the actual world' has among the world indices; that is, unless something indicates the contrary, a proposition is 'evaluated' relative to the 'actual' indices: it is taken as referring to the present time, to the actual world, to the place where it is uttered, and so forth.'

Thus in (2), for example, the index **t** refers to the time with respect to which the tense operator FUT is evaluated. It should be stressed, however, that this index is DEICTIC in nature: it refers either to the 'actual now' or to some other moment of time that the speaker calls 'now'. I will therefore refer to it as the TEMPORAL DEICTIC

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[4] It may be possible, even easy, to develop a mapping from the system used here onto one that is more readily manipulable by formal logicians; such an undertaking is, however, outside the scope of this work.

CENTER OF NOW-WINDOW, here represented N, by which the operator is evaluated; I thus use formulations like (4).

(4) $FUT^N(S)$

As McCawley points out, other categories of schetic operators are similarly to be interpreted with different types of deictic indices. Epistemic status operators like POT make deictic reference to the set of possible worlds that are judged real or realizable, here represented R. Mood operators like DECLAR, on the other hand, refer to the participant deictic center, that is, the person(s) responsible for judging the epistemic status of the situation, here represented P. We thus arrive at a threefold classification of DEICTICALLY INDEXED SCHETIC OPERATORS:

Category	**Deictic index**	**Type of deixis**
Mood	P	Participant
Epistemic status	R	Reality
Tense	N	Time

Figure 45. Types of deictically indexed schetic operators

For each deictic index, as McCawley points out, there is a default deictic center, namely that associated with the speaker--or perhaps more accurately, with the deictic axis formed by the pairing of speaker and hearer. I will indicate this default by substituting 0 for the indexical subscript: P_0 is the SPEAKER'S PARTICIPANT AXIS (the axis formed by speaker and hearer); R_0 is the SPEAKER'S REALITY-WINDOW (the set of worlds considered likely); and N_0 is the SPEAKER'S NOW-WINDOW (equivalent to Reichenbach's S). We thus obtain what Silverstein (p.c.) has succinctly characterized as the 'I-here-now' triad of deictic centers.

In an embedded context, the deictic center may shift from the default center to a relative center established from the context. In Tlingit, for example, the time taken as 'now' in a narrative context is usually not the speaker's now, but the narrative now, i.e. the window of time that has been arrived at in the narration; this will be discussed in 8.1.4. Similarly, the person with reference to whom a modal category is defined is usually the speaker in an unembedded context, but regularly shifts to another person in an embedded context.

(5) *ne'ł-dé· nɢagu'ďı·*

(home-ALL let.3.go)

'Let him go home (Hortative).'

(6) *ne'ł-dé· nɢagu'ďı·-d ʔa-saÿahé· du-shád-ǯ*

(home-ALL let.3.go-PUNCT 3-3.wants 3-wife-ERG)

'His wife wants him to go home (Hortative).'

The participant deictic center of the Hortative clause in (5) is P_0: it is the speaker who wants someone to go home. In (6), however, it is the wife who wants him to go home; hence the wife rather than the speaker is P, the participant deictic center of the embedded Hortative clause.

The hypothetical protasis construction discussed in 8.6.3 offers an analogous instance of shifting of the epistemic-status deictic center. This involves the substitution of some hypothetical reality-window R_h for the speaker's reality-window

R_0. Thus the epistemic status of R_h is evaluated as if R_h were real, so that the hypothetical protasis is realis in form.

One rather surprising conclusion of this study of the schetic categories of Tlingit is that the individuated-habitual operator (HAB^N), like the tense operators, carries a temporal deictic index, in contrast to the purely aspectual operators, i.e. those that correspond to the formal categories called epiaspect and lexical-derivational aspect, which are non-indexed. In Tlingit, then, the individuated-habitual category forms a natural group together with the tense category per se. The most important evidence for this conclusion is the fact that deictically indexed operators do not occur in the semantic representations of non-finite clauses; that is, mood, status, and tense (including habituality) are not semantically distinguished in such clauses. Polarity (the affirmative-negative contrast) and pure aspect, on the other hand, are so distinguished. This fact will be discussed and illustrated in section 8.5. We thus end up with a clear distinction between deictically indexed operators for the categories of mood, status, and tense, and non-indexed operators for the categories of pure aspect and polarity.

8.1.2. Ordering of schetic operators

When these schetic operators cooccur, how are they to be ordered with respect to one another? One principle is clear:

(7) Deictically indexed (mood-status-tense) operators are matrix operators and therefore dominate non-indexed (aspectual) operators.

That is, the deictic indices associated with the mood-status-tense operators provide the matrix within which the utterance as a whole is to be understood. As for linguistic evidence for this principle, we can cite the well-known cross-linguistic observation mentioned above that mood-status-tense distinctions tend to be neutralized in non-matrix clauses, whereas aspectual distinctions tend not to be.

As for the question of how the deictically indexed schetic operators are ordered, there appears to be less unambiguous linguistic evidence. I have chosen here the following order, which seems intuitively likely and correlates with the order of morphemes generally found in non-templatic languages where the morphemic structure more directly reflects the underlying semantics (see Bybee 1985, esp. chapters 2 and 9).

(8) $\mathrm{MOOD}^{P}(\mathrm{STATUS}^{R}(\mathrm{TENSE}^{N}(S)))$

That is, mood dominates status, which dominates tense. It can be argued, moreover, that this ordering is based on the innate structure of the logical categories. If one accepts the premise that the determination of which world is real and which worlds are possible depends on knowledge shared by the speech-act participants, then the set of relevant worlds cannot be identified without establishing the identity of these participants. Similarly, in a logical model where at any given moment the timeline may branch out into any number of possible worlds, then selecting a time as 'now' presupposes establishing the identity of the world containing the timeline along which this time is located. By this reasoning, mood must be established first, then status, and finally tense.

One schetic operator seems to have a special status which should be discussed here; this is the negative operator (NEG). In formal logic, this is a pure operator that may modify any proposition. There is therefore no logical reason why negation could not be introduced at any point in the string of schetic operators. In natural languages, however, certain operators such as the tense operators seem to be completely transparent with respect to negativity, e.g. $\mathrm{PAST}^{N}(\mathrm{NEG}(S))$ seems to be indistinguishable from $\mathrm{NEG}(\mathrm{PAST}^{N}(S))$. And although it seems theoretically possible, I know of no case where scope-of-negativity distinctions are maintained among schetic categories that are morphologically expressed[5]. In Tlingit, for example, the Negative Potential is semantically expressible as (9) and not as (10) (see further 8.2.1.5).

(9) $\mathrm{DECLAR}^{P}(\mathrm{POT}^{R}(\mathrm{NEG}(\mathrm{FUT}^{N}(S))))$,

i.e. 'it is possible that S will not be the case'

(10) $*\mathrm{DECLAR}^{P}(\mathrm{NEG}(\mathrm{POT}^{R}(\mathrm{FUT}^{N}(S))))$,

i.e. 'it is not possible that S will be the case'

This fact constitutes evidence that for Tlingit, the negative operator should occur to the left of the status operator POT, but where exactly does it fit into the system?

Formally, negative statements are treated like dubitative and presumptive statements; all three take the Irrealis form of the verb, as illustrated in (11).

(11a) Theme *O-S-Ø-ǯaG** (ʌ: Event.) 'S kills O'

(11b) *tsa' ʔa'waǯáG* (Realis Perfective) 'he killed a seal'

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[5] Such distinctions seem more likely to exist in languages where the the deictically indexed schetic categories are analytically expressed.

(11c) *tłé·ł tsa‘ ʔawuǯa‘G* (Irrealis Perfective) ‘he didn’t kill a seal’

(11d) *gwáł tsa‘ ʔawuǯa‘G* (Irrealis Perfective) ‘maybe he killed a seal’

(11e) *tsa‘#gíwé ʔawuǯa‘G* (Irrealis Perfective) ‘it would seem he killed a seal’; ‘I guess he killed a seal’

This raises the possibility that--in terms of natural language if not logic--these three categories can all be interpreted as having to do with possible worlds: a negative sentence denies that the situation transpires in any world; dubitative and evidential sentences express uncertainty whether the situation transpires in the real world. In Tlingit, then, there exist grounds for grouping the negative operator together with the status operators.

8.1.3. Synopsis of schetic operators

For each category of schetic operators, I will assume that there is an unmarked member; in Figure 46, the unmarked operator in each category is parenthesized.

DEICTICALLY INDEXED CATEGORIES				**ASPECTUAL CATEGORIES**
MOOD^P	**STATUS^R-POLARITY**		**TENSE^N**	
(DECLAR)	(REAL)	(AFFIRM)	(PRES)	(PERF)
REQUEST	IRREAL	NEG	PAST	RESULT
	POT		FUT	IMPERF
			HAB	ITER
			NEXT	PROG

Figure 46. Schetic operators in Tlingit

I will furthermore adopt the convention, suggested by Sadock (p.c.), of omitting the unmarked operators from semantic representations of schetic categories (unless the discussion is made clearer by overtly specifying these markers), since they can trivially be filled in by the following convention:

(12) If no marked schetic operator is specified for a given schetic category, the unmarked operator in that category is implicit.

Trimming the semantic representations in this way has the desirable effect of rendering more transparent the mapping between formal schetic categories and schetic operators.

In particular, the semantic representations corresponding to the Tlingit Declarative and Deontic modes can be constructed from Figure 47 (representations of the Circumstantial modes are given in Figure 60, a fuller version of the figure below).[6] By substituting the formulae heading the columns for f(S)--that is, some function of S, the situation with respect to which the category is defined--within the formulae heading the rows, one obtains a semantic representation of the schetic category in question. For example, the Imperfective Habitual is $HAB^{N}(IMPF(S))$, the Optative is $REQUEST^{P}(POT^{R}(FUT^{N}(S)))$. Note, however, that the Perfective is not simply f(S) but rather, as I will propose below, either RESULT(S) or $PAST^{N}(S)$ and RESULT(S); see further 8.2.1.2 and 8.3.2.2.

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[6] Omitted are the Realizational mode, whose semantics are not fully understood, and the Admonitive mode, which seems essentially to be a negative counterpart to the Imperative/Hortative.

f(S):	**S**	**IMPF(S)**	**FUT^{N}(S)**	**POT^{R}(FUT^{N}(S))**
f(S)	Perfective	Imperfective	Future	Potential
HAB^{N}(f(S))	Perf. Hab.	Impf. Hab.	Fut. Hab.	
REQUEST^{P}(f(S))			Imperative/ Hortative	Optative

Figure 47. Semantic representations of the independent modes

8.1.4. Narrative sequences and the temporal deictic index

Tlingit is a language where, in Comrie's terms, (1985:102ff.), tense is neutralized in narrative sequences. More precisely, once the narrative now-window--the current temporal deictic center of the narrative--has been identified by establishing a reference time, the tense reference is generally understood relative to the narrative now-window rather than to than the speaker's now-window (N_0). At any point, the speaker is free to revert to N_0, but it is normal to signal such a shift with a temporal adverb (such as *ÿi‘dád* 'now'), that specifies speech act time.[7] In narrative sequences, Imperfective and Perfective Habitual verbs are understood to have present time reference and Future verbs to have future time reference with respect to the narrative now-window.

I will leave open for now the question of whether this 'now-window' is a point or an interval; it seems plausible that whereas the N_0 may for practical purposes be regarded as a point, a narrative now-window is more likely to be an interval. A narrative sequence naturally lends itself to being chopped into intervals rather than diced into points.

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[7] Unlike English 'now', Tlingit *ÿi‘dád* refers exclusively to the speaker's now-window.

8.1.4.1. Past narrative sequences

In the following passage, for example, most events are set in narrative time. Here the Imperfectives take place within the narrative now-window, and the Futures in (13f-g) and in the relative clause in (13t) refer to events subsequent to the narrative now-window. In (13u), an explicit time adverbial ('to this day') indicates a reversion to N_0, but this is a short digression; with (13v) we are back to narrative time.

(13) N-L D912-28:

(13a) *'ʔa·-dé quχ̣#qatudaʔa·dí,'*

(there-ALL back#let's.go)

'Let's go (Hortative) back there,'

(13b) *yú· χ̣ad-da·yaqá wé ʔaχ̣-χ̣án ʔa·.*

(thus me-3.says that my-proximity one)

my husband said (Imperfective) to me.

(13c) *'ʔa·á,' yé·#da·yaχ̣aqá*

(yes, thus#I.say)

'Yes,' I said (Imperfective)

(13d) *ƛe ʔad-wutuwaxu·n.*

(just thing-we.prepared.to.go)

and we got ready to go (Perfective).

(13e) *š-χ̣adlití·,*

(self-I.rejoice)

I rejoiced (Imperfective);

(13f) *ʔax̣-ʔi·š x̣án-de gax̣tu·ʔá·d,*

(my-father proximity-ALL we.will.go)

we were going (Future) to see my father,

(13g) *du-ʔi·n š-kagʷqadaní·g.*

(3-COMIT self-I.will tell)

and I would [be able to] tell (Future) him about myself.

(13h) *ke·λ ʔad-wa·G-dé wtuwaGiǯ*

(dog thing's-eye-ALL we.threw)

We quickly harnessed up (Perfective) the dogs

(13i) *ƛe wtuwaʔa·d ʔa·-dé.*

(just we.went there-ALL)

and went (Perfective) there.

(13j) *wé t'akʷané·yi#cú xát'a· tú·-d tusaʔá·,*

(that baby#also sled inside-PUNCT we.cause.3.to.sit)

We had the baby sit (Imperfective) in the sled,

(13k) *wé·t'a· wé s'igax̣šá·k'w.*

(that.one that S'igax̱shak̓'w)

that one, S'igax̱shak̓'w.

(13l) *ʔa ʔá-d wutuwaʔád,*

(so there-PUNCT we.came)

So we arrived (Perfective) there--

(13m) *hé'! dzískʷ#gʷšé·wé ʔa·waǯáG ʔax̣-ʔi·š.*

(my! moose#I.guess 3.killed.3 my-father)

my! my father had killed (Perfective) a moose.

(13n) *łdakád ʔa-yigʔád-i#ʔáwé wdudziʔi·,*

(all its-inside-thing-POSS#FOCUS one.cooked.3)

They had cooked (Perfective) all the innards,

(13o) *wé ʔax̣-ƛá·kʷ#quʔa#gʷšé·wé sagʷné·n ʔawsiʔi·.*

(that my-maternal.aunt#however#I.guess.FOCUS bread 3.cooked.3)

and my aunt had baked bread (Perfective).

(13p) *da·ɢ#ha·-wdudziʔád*

(back#us-one.caused.to.go)

They led (Perfective) us to our seats [against the back wall]

(13q) *ʔad-tu·x̣á.*

(thing-we.eat)

and we ate (Imperfective).

(13r) *yan#ʔad-tux̣á·#ʔáwé ƛe wé s̓ix̣' ƛe x̣u‘-ya-x̣ʷłiʔús’*

(to.finish#thing-when.we.ate#FOCUS just that dish just among-face-I.washed.3)

After we had finished eating (Consecutive) I washed (Perfective) the dishes

(13s) *ƛe kax̣ʷa·čág has-du-ǯiyis.*

(just I.put.3.away PL-3-for)

and put (Perfective) them away for them.

(13t) *č̓a#ƛágʷ#áwé ʔax̣-tú·-d wu·xi·x wé ʔa·dé š-kuqasni· yé.*

(ipse#always#FOCUS my-inside-PUNCT 3.moves.about that thus self-I.will.do.to way)

I kept pondering (Perfective) the thought of what I was going to do (Future) to myself.

(13u) *ʔa č̓u#yi·dádi-dé du-kina·-yé·g-i x̣ładlé·gʷ#ni·ǯ ʔax̣-ʔi·š.*

(so even#now-ALL 3-above-spirit-POSS I.stroke.3#HAB.AUX my father)

To this day I thank [lit. stroke] the guiding spirit of my father.

(13v) *ʔó·, ʔa-yayi·-d tugʷx̣a·ǯéł wé xá·na· ƛe·n.*

(oh, its-anticipation-PUNCT I.stored.up.thoughts that evening big)

Oh, I had stored (Perfective) up enough inside me [to talk about] all evening long.

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For Perfective verbs, as this passage illustrates, the situation is more complex. With respect to the speaker's now-window, Perfective verbs are understood to have either present time reference (for Involuntary Eventive verbs and Perambulatives) or past time reference (otherwise). With respect to the narrative now-window, Perfective forms of Involuntary Eventive verbs and Perambulatives have present time reference--this is illustrated in (13t), where *ˀax̣-tú·-d wu·xi·x* 'I am pondering it' (lit. 'it is moving about inside me') is a Perambulative. Other Perfective verbs may have either past time reference or, what is more usual, indicate a situation immediately following the current narrative now-window. In the above passage, for example, most of the events referred to with Perfective forms take place just after the narrative now-window, but the events of (13m-o) have in fact taken place prior to the narrative now-window. In (13m), for example, the form of the verb does not indicate whether EN's father killed the moose before or after her arrival. However, the narrator here provides an interpretative clue by using the clitic *#gʷšé·-wé* 'I guess', implying that she had not been there to witness the killing and thus that the killing antedated her arrival; this clitic is repeated in (13o). (13v) is another example where the Perfective refers to an event prior to the now-window.

We have stated that the events referred to with Perfective forms indicate a situation immediately following the narrative now-window. It would be more accurate, however, to say that in narrative sequences, the Perfective typically serves to indicate the SHIFT TO A NEW NARRATIVE NOW-WINDOW. Thus, for example, in (13d) the narrative now-window includes the preparation for the trip, i.e. getting the necessary goods and implements ready. During this time, EN is joyful; this is indicated by the Stative Imperfective in (13e). Furthermore, it is relative to this time that the Futures in (13f) and (13g) are to be evaluated. In (13h), on the other hand, the Perfective form signals the shift to a new narrative now-window where they are hitching up the dogs; and in (13i), the scene changes to the journey itself.[8] During this time, the baby is sitting in the sled, as indicated by the Imperfective in (13j); the Perfective form indicating their arrival in (13l) signals another shift of the narrative now-window. In general, then, a Perfective form can usually be said to create a narrative now-window (although Perfectives may, like the other modes, be evaluated relative to the current narrative now-window).

Not infrequently, however, we encounter cases where it would seem that an advance in the narrative now-window is realized without recourse to a Perfective verb form. In (13q), for example, the act of eating, denoted by an Imperfective form, is surely subsequent to the guests' being conducted to their place in (13p). Does this mean that Imperfective forms as well as Perfective forms may serve to advance the narrative now-window? I see two alternative hypotheses to explain such cases. The first rests on the observation that the primary meaning of the Tlingit Imperfective and Perfective modes is aspectual, and that their tense interpretation may derive from conventional implicature. Thus if a past event is aspectually perfective, it will be expressed by a Perfective, but if aspectually imperfective, by an

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[8] Note that the verb in (13i) is ambiguous; it may translate either 'we left for there' or 'we went there'.

Imperfective. We could then say that an advance in the narrative now-window is signaled by the use of a past-tense verb form, namely either Perfective or Imperfective depending on the aspect of the verb. An Imperfective form in a narrative might be either past-tense, in which case it advances the narrative now-window, or present-tense, in which case it is to be evaluated according to the preexisting current narrative now-window. The tense of the verb form would thus be covert, i.e. not indicated by the form of the verb.

The second hypothesis rests on the observation that Perfective verbs specify not only the past occurrence of an event but also a state of affairs resulting from the event (see 8.2.1.2). If the Perfective verb in (13p) is interpreted as referring not only to the act of leading the guests to their place, but also to the result that the guests occupy that place, then it is possible to conclude that the act of eating in (13q) takes place within the narrative now-window set up by (13p), i.e. during the time the guests are sitting at their place. Finally, in (13r), the conclusion of eating establishes a new narrative now-window when the guests are no longer sitting in their place, whereupon EN does the dishes; this is indicated by a Consecutive dependent clause followed by a Perfective main clause.

An obvious factor in the choice of Perfective or Imperfective in a narrative sequence is the lexical aspect category of the verb. Verbs lacking a Primary Imperfective (i.e. Motion and Eventive verbs) are almost always Perfective, whereas those having a Primary Imperfective (i.e. Processive, Positional, and Stative verbs) tend to be Imperfective. Thus in the above passage, the Motion verbs in (13a), (13h), (13i), (13l), (13p), (13t), and the Event verb in (13d) are Perfective. The Stative verb in (13e) and the Positional verb in (13j) are Imperfective, as are the Processive verbs in (13b-c) and (13q); but the Processive verbs in (13r) and (13s) are Perfective.[9]

This entire sequence can be viewed diagrammatically as follows, where the now-windows are bracketed on the timeline and labeled N_i, where i refers to the now-window-creating clause. Below each now-window I list the non-now-window-creating clauses associated with it, together with a tense operator indicating how these are to be evaluated temporally relative to the now-window in question; those that lack a tense operator are evaluated as concurrent with the now-window.

...	N_{13d}	N_{13h}	N_{13i}	N_{13l}	N_{13p}	N_{13q}	N_{13r}	N_{13s}	...
(-------)	(------------)	(-------)	(-------)	(------------------)	(---------)	(--------)	(--------)	(------------)	
(13b)	(13e)		(13j)	PAST(13m)				(13t)	
(13c)	FUT(13f)			PAST(13n)				FUT(13v)	
	FUT(13g)			PAST(13o)					

Figure 48. Temporal relationships of situations in sequence (13)

Sequences like the above, where the narrative is carried along by past-tense Perfective forms, we may call PAST NARRATIVE SEQUENCES. We frequently also find HABITUAL NARRATIVE SEQUENCES, where the backbone of the narrative is composed of Habitual rather than Perfective forms, and FUTURE NARRATIVE SEQUENCES, where the backbone of the narrative is composed of Future forms. For all these types of narrative sequences, we may posit two general principles that interact to determine the interpretation of tense.

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[9] I omit, of course, the verbs that are interpreted as past or future with respect to the narrative now-window.

> (14) In narrative sequences, forms with the tense characteristic of the sequence--i.e. Perfective for past narrative sequences, Habitual for habitual narrative sequences, and Future for future narrative sequences--are temporally evaluated with respect to the speech-act now-window unless the context indicates otherwise.
>
> (15) Otherwise, Declarative mode forms are temporally evaluated with respect to the narrative now-window.

Thus in a past narrative sequence, for example, a Perfective form is by default understood as evaluated with respect to N_0 and thus as establishing a new narrative now-window, but if this default interpretation does not make sense or is contraindicated by the context, this form will be evaluated with respect to the current narrative now-window and thus translate as an English Past Perfect.

8.1.4.2. Habitual narrative sequences

An example of a habitual narrative sequence is (16a-d). This sequence interrupts a past narrative sequence; its purpose is to explain how it was that K̲āx̲'achgū́k's wife was able to recognize him from afar, as stated in (16e).

(16) D-D1 C393-400:

(16a) *yán-de· ya·#gɢaqúx̣ún yí·yi#ˀáyú ˀax̣-ƛa·ká·g ˀax̣-łí·łkʷ qa·x̣'aǯgú·g,*

(shore-ALL along#whenever.3.is.going.by.boat former#FOCUS my-mother's-maternal. uncle, my-grandparent K̲āx̱'achguk̓)

'Formerly, when he was paddling (Contingent) toward shore, my mother's uncle, my grandfather K̲āx̱'achguk̓,

(16b) *da·x'u·n-dahí·n#áyú hí·n-de· ˀanacáɢǯ du-ˀax̣á·-yi,*

(four-times#FOCUS water-ALL 3.pokes.3 3-paddle-POSS)

he would put (Perfective Habitual) his paddle into the water four times;

(16c) *s'át'nax̣ˀa·-náx̣ ˀa-x̣uká-· ˀawu·yíšǯ.*

(left-side-PERL its-deck-LOC 3.pulls.3.aside)

he would pull (Perfective Habitual) it up over the gunwales from the left side

(16d) *ˀa-ká-x'#áwé yan#wu·sˀá·yǯ du-ˀax̣á·-yi.*

(its-surface-LOC#FOCUS to.rest#3.moves.face 3-paddle-POSS)

and rest (Perfective Habitual) his head atop his paddle.

(16e) *ˀá#ˀáwé du-šád-ǯ ƛe ya·wašín.*

(it#FOCUS 3-wife-ERG just 3.recognized.3)

That is how his wife recognized (Perfective) him.'

As this passage illustrates, habitual sequences resemble narrative sequences in that they may involve a sequence of events with some internal complexity. As with past sequences, too, it seems that each new Perfective Habitual form creates creates a new now-window which advances the narrative. As in past sequences, Imperfective forms are often interspersed among Habitual forms in habitual sequences, where they have habitual interpretation.[10]

However, there is a problem in analyzing of the function of Imperfectives in an habitual sequence. This problem arises from the fact that Imperfectives may have habitual meaning even OUTSIDE a habitual sequence, as do Habituals. The question arises, then, whether a given Imperfective in a habitual sequence is to be temporally evaluated with respect to the current now-window, or whether, like a Habitual, it is to be interpreted as creating its own now-window. We will discuss this question in section 8.2.1.6.

8.1.4.3. Future narrative sequences

An example of a future narrative sequence is (17), which is extracted from a passage where the Tl'anax̱ídákw tells a young man how he is to go about performing a ritual which will bring him good fortune.

(17) N-L F481-7, 490-2, 495-6, 498-500:

(17a) *kaya·ní ƛ'á·k'#áwé ʔa·-dé gax̣yi·yá·*,

(herbage dry#FOCUS there-ALL you(pl.).will.pack)

'You must pack (Future) dry brush there,

(17b) *č'u#ƛe qí·d, s'ige·dí qí·du yáx̣ guGaɬí· ƛe yú·*.

(even#just dam, beaver dam like 3.will.be just thus) and it must be (Future) like a dam, a beaver dam, like this.

---

[10] My attempts to elicit habitual sequences with Future forms interpreted in a habitual context, however, were met with confusion. Such sequences could be considered awkward in English too. The example I asked WS and EN to translate was 'Every year we go shopping. We are going to go trapping the next day, so we buy the traps.' Note that in Tlingit as in English, the awkwardness can be removed by transforming the futurate main clause into a dependent clause.

(17c) *yá ʔá-· ye·#gɢi·nug yé#quʔa#áwé diyín-de yú· qugax̣duhá·*,

(this there-LOC down#you.will.sit.ATTR place#however#FOCUS down-toward thus one.will.dig.3)

They must dig down (Future) at the place you sit (Future);

(17d) *su·ɢ ʔa-tá-· yé·#gax̣yi·ʔu·*.

(moss its-bottom-LOC thus#you(pl.).will.put)

you must line it (Future) with moss.

(17e) *šú·gu ʔa·-yí ʔi-ka·-dé da·g#šayawdudziɢix'i ʔa·*,

(first one-POSS your-surface-ALL out#one.has.thrown.a.pile.of.3-ATTR one)

[With] the first pile [of brush] they toss (Perfective) onto you, [say,]

(17f) *'ha łax̣é·λ, ƛ'anaxí·dáɢʷ ʔax̣-ká-d šakawłiwáł'.'*

(well good.fortune, Tl'anaxídák̲w my-surface-PUNCT 3.has.broken.a.pile. of.3)

'The Tl'anaxídák̲w has broken (Perfective) [the dam so that] good fortune [spills] onto me.'

...

(17g) *šayanax̣daha· du-gu·x̣-ú*,

(3.will.be(come).many 3-slave-POSS)

Let his slaves be numerous (Hortative),[11]

(17h) *cu hás#cú gu·x̣ has-ʔanɢaʔu·*,

(again they#also slave PL-let.3.buy.3)

and let them buy (Hortative) slaves themselves.

(17i) *ƛe yé·#ʔáwé ʔałx̣é·s' ƛe dág-de šayagax̣dułɢi·ǯ*.

(just thus#FOCUS 3.prays just out-ALL 3-will.throw.piles.of.3)

He was to be praying (Imperfective) thus and they were to toss the piles down (Future)

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[11] In (17g-i) EN has switched from a direct quote of what the young man is to say in his prayer to indirect speech, so that he is now referred in to the third person (rather than the first person seen in (17f)).

...

(17j) *ƛe č̓as#ʔi-ša-ki· ʔa-nax̣ guɢašú· wé kaya·ni ƛ'á·k'*,

(just only#your-head-top it-PERL 3.will.extend that herbage dry)

Only the top of your head must protrude (Future) through the dry brush,

...

(17k) *č̓a#łdakád č̓u#ƛe da·#sá ʔá-x̣ ʔaydliɢix̣'*.

(ipse#all even#just what#WHQ it-PERT you.have.made.prayer)

Everything, whatever you have prayed for (Perfective),

(17l) *č̓u#ƛe łdakád#áwé de ʔi-ǯi-yís yan#ʔuwani·*,

(even#just all#FOCUS already your-hand-for to.finish#it.has. happened.to.3)

everything will have been prepared (Perfective) for you

(17m) *ƛe yé· yu·#s-ʔi-kawdusya·-yí*.

(even thus repeatedly#PL-you-one.has.caused.to.happen-SUB)

when they do that for you (Subordinative Perfective).

I have chosen this rather complex passage because here we have instances of both Imperfective (17i) and Perfective (17l) main-clause verbs that are temporally evaluated with respect to the future narrative now-window.[12]

8.1.4.4. The temporal deictic index

The term 'neutralization of tense' seems to me inadequate to describe the evaluation of tense reference with respect to a non-speech-act now-window. The tense is not 'neutralized'; rather, it is evaluated from a temporal deictic center other than the speech act. Tlingit does, however, have a phenomenon that would seem better described by the term 'neutralization'. This is the neutralization of Decessive marking: in narrative sequences describing how things used to be, it is often the case that some verbs internal to the sequence are not overtly marked as Decessive, even though it is clear that they are to be so interpreted. This phenomenon is characterizable as a case where overt marking of a schetic category can be omitted where the context makes it clear that the verb is to be interpreted as marked for this category. It will be discussed and illustrated in section 8.3.2.[13]

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[12] I should mention in this connection that whereas it is quite common for dependent-clause verbs, such as that in (17m), to be interpreted in this way, one much less commonly finds main-clause verbs in non-futurate modes within future narrative sequences.

By now it should be clear to the reader familiar with the schetic literature that the speaker's now-window, abbreviated N_0, is identical with Reichenbach's S ('point of speech'). This is the deictic center created by an event identified by Reichenbach (1947) as the speech act and by Bull (1963) as an act of observation on the part of the speaker. Elsewhere, the term 'now-window' may be identified with Reichenbach's R ('point of reference').

I prefer this terminology to that of Reichenbach for two reasons. First, while there is general agreement about the meaning of Reichenbach's S, the same cannot be said for Reichenbach's R. Reichenbach does not explicitly define this term, but it seems likely that his understanding of R was different from Comrie's; Comrie's assertion that Reichenbach's characterization of the tense distinction between the

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[13] The problem mentioned above in the interpretation of Imperfectives in Habitual narrative sequences might be similarly explained. It would be possible to maintain that these Imperfectives are to be interpreted as if they had Habitual Auxiliaries.

English Perfect and Past is inadequate (1985:78) seems to have its root in this difference. In his discussion of tense logic, McCawley's (1981) definition of the term 'reference point' is admittedly incompatible with the meaning Reichenbach seems to give it. Here McCawley defines the reference point as 'the time that (a constituent of logical structure) is evaluated at' (1981:351). When this time is a bound variable, he interprets R as an interval over which the bound variable ranges (19981:354f.). This interpretation of R as an interval seems identical with what Dahl calls the '**temporal frame** for the E(vent) points, that is, a time period within which they are located.' (1985:30); note, however, that Dahl does not envision this temporal frame as identical with R but rather as a separate variable. We should note in this connection that McCawley admits the possibility of interpreting R as an interval, whereas Reichenbach or Comrie never refer to R as anything but a point. Johnson (1981) agrees with McCawley in this respect, but it is not clear to me that her use of R is compatible with any of the above-mentioned. The root of the confusion here seems to be that the phrase 'reference point' lends itself to more than one interpretation, and most authorities, beginning with Reichenbach, have neglected to give us a clear working definition for this term.

The second reason for the present terminology is that it makes explicit the relationship between S and R. The position taken here is that both S and R refer to now-windows (temporal deictic centers); they differ in that S refers to one created by the speech act--or perhaps more accurately, to an act of determination on the speaker's part--and R to one arising from narrative context. Tense may be evaluated from either type of now-window.[14] Using this terminology, then, we will find it possible to make appropriately general statements about the meanings of tenses.

8.2. The modes

8.2.1. Declarative modes

The Declarative modes are used to assert or question facts and possibilities. The rare Realizational mode is attested only in Assertive Realis forms. Otherwise, all the Declarative modes have Decessive forms, which denote that the situation denoted by the verb, or a state of affairs resulting from that situation, has ceased to be valid (the Decessive is discussed in 8.3.2). The Declarative modes are unmarked for mood, and therefore to be interpreted with the default mood operator DECLAR.

8.2.1.1. The Imperfective mode

The Imperfective is perhaps the most frequently occurring mode, and there is remarkable proliferation of Imperfective types unmatched by any other mode; many verbs may occur with two or more varieties of Imperfective. Furthermore, although the lexical aspect of a verb largely determines which type of habitual Imperfective a verb takes, there is little or no correlation between the type(s) of primary (non-habitual) Imperfective that a verb may take and the aspectual category of the verb. This fact sets the Imperfective apart from all other modes, for which variation is determined solely on the basis of aspectual category.

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[14] This insight is also implicit in Chung and Timberlake (1985:203). They do not refer to Reichenbach's S and R at all, however, using instead the term 'tense locus', which seems equivalent to my 'now-window'.

As pointed out in Chapter 7, the Imperfectives may be divided into two major categories: PRIMARY Imperfectives, which can refer to an ongoing continuous situation, but which can also be used for generic sentences; and SECONDARY Imperfectives, whose meaning necessarily involves progressivity, habituality, iterativity, conativity, or multiple reference. Among the secondary Imperfectives we must distinguish the PROGRESSIVE IMPERFECTIVE, which is the Imperfective of the Progressive epiaspect, from ITERATIVE Imperfectives, which denote repeated action, either iterative, conative, habitual, or distributed among multiple participants; the latter category may be distinguished as MULTIPLE-ITERATIVE.

The meaning of the Primary Imperfective is illustrated by (18b); the default interpretation is that it refers to an ongoing continuous situation ('Are you eating meat?'), but it may also be interpreted GENERICALLY, indicating a characteristically valid situation ('Do you eat meat?' = 'Are you a meat-eater?').

(18a) Theme *O-S-∅-x̣a•·* (∅: '-Process.) 'S eats O'

(18b) *ƛiy̓#ágí ʔiʼx̣á?* (Primary: '-Processive Imperfective)

(meat#INTERROG you-eat)

'are you eating meat?'; 'do you eat meat?'

(18c) *caʿ ƛiy̓-i·#ʔáyá x̣ax̣é·x̣* (Iterative: x̣-Processive Imperfective)

(seal meat-POSS#FOCUS I.eat.repeatedly)

‘I keep eating seal meat (repeatedly or habitually)’; ‘I keep undertaking/trying to eat seal meat (repeatedly)’; ‘I've been eating seal meat (habitually)’

Similarly, the Iterative Imperfective, as illustrated in (18c), may have a simple iterative interpretation, referring to a single complex event where the action is repeated or undertaken consecutively (‘I keep eating/trying to eat it’), or may be interpreted HABITUALLY, as referring to events distributed through time (‘I've been eating it (habitually), I keep eating it (habitually)’).[15]

The difference between the Iterative and the Multiple-iterative is illustrated by (19b) and (19c).

(19a) Theme *O-∅-na*·* (na: Event.) ‘O dies’

(19b) *yu‘#yaná·gʷ* (Iterative: yu‘#-g-Processive Imperfective) ‘he/she/it keeps dying (and coming back to life)’

(19c) *has#ná·t’* (Multiple-iterative: t’-Processive Imperfective) ‘they keep dying (one after another); they are dying off’

For verbs whose primary Imperfective is x̣-Processive or yu‘#(I)g-Processive, the Imperfective may be interpreted either as non-iterative or iterative:

(20a) Theme *yu‘#x̣’e-S-∅-tan** (∅: yu‘#(I)g-Process.) ‘single S speaks’

(20b) *yu‘#x̣’ayatáng* (Primary or Iterative: yu‘#(I)g-Processive Imperfective) ‘he/she is speaking’; ‘he/she speaks (characteristically)’; ‘he/she speaks (habitually)’

Thus we see that Tlingit does not draw a clear line between non-extended (single-situation) interpretations and extended (multiple-situation) interpretations of Imperfective forms. The non-Iterative Imperfective can be interpreted either non-generically or generically, and similarly the Iterative Imperfective can be interpreted either non-habitually or habitually.[16]

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[15] The Iterative denotes that the situation is repeatedly undertaken or begun, but does not specify whether it is successfully completed. English lacks a colloquial construction to specify repeated undertaking; ‘keep trying’ is perhaps the closest equivalent, although it implies conativity, which the Tlingit *x̣ax̣é·x̣* does not.

In (21) we provide the semantic representation of an Imperfective form referring to a given situation S(x). According to the principle of underspecification introduced in 8.1.3, if no tense operator is specified in the semantic representation, the unmarked tense operator may be supplied, namely PRES.

(21) Imperfective: IMPF(S(x)) = PRES^{N_i}(IMPF(S(x)))

This semantic representation is equivalent to the diagram given in Figure 49, where the present tense component of the Imperfective is graphically indicated by locating the imperfective situation with respect to the now-window N_i on a timeline.

N_i

--------(----------------)--------

IMPF(S(x))

Figure 49. The Imperfective

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[16] I am not sure if the 'dispositional' interpretation referred to by Carlson (1981:43) can be equated with the 'generic' interpretation referred to here. Note also that the formal evidence from Tlingit (as well as Athabaskan and Eyak) does not support the interpretation of generic and habitual sentences in general as stative.

This diagram indicates that S(x), the situation denoted by clause x, is true within at least part of N_i.[17] As a first approximation, we may interpret the operator PRES logically as follows:

(22) $PRES^{N_i}(S(x))$: S(x) is PRES with respect to N_i if S(x) is true at some subinterval contained in the interval N_i.[18]

We should now consider the effect produced by the type of now-window with respect to which the Imperfective is evaluated. As we saw in section 8.1.4, the narrative now-window is a space of time determined by a verbal form in a narrative, with respect to which other verbal forms may be evaluated. Since the duration of a narrative now-window is determined by a verbal form, the narrative now-window must be considered an interval containing one or more points, since verbal forms often denote situations occupying more than a single point of time. The speech act now-window (my N_0, Reichenbach's S), on the other hand, has more often than not been considered, at least implicitly, as reducible to a single point (see, for example, Comrie 1985, McCawley 1981, and Johnson 1981). One may argue that the speech act has duration, and therefore that the speech act now-window must be an interval; but it is by no means clear that the 'speech act', if this is indeed what determines the speaker's deictic center, can be equated with the act of speaking. Indeed, it seems intuitively plausible that the determination of N_0 is the result of a single mental act of determination on the speaker's part, and need not involve speech at all. If we provisionally take this to be the case, and furthermore define the term 'point' in terms compatible with natural language, say the length of time it takes to make such a mental act of determination, then we may conclude that N_0 is a point. Regardless of whether we take N_0 to be a point or an interval, however, statement (22) above will suffice to define the tense reference of the Imperfective.

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[17] I follow Comrie (1976:13) in using the term 'situation' as a cover term for states, events, and processes.

[18] This formulation, however, immediately runs into the well-known problem that we humans are wont to evaluate an event as true through an interval even if that event is not taking place at literally every point during the interval; see for example Dowty (1977) and Bennett (1981). This problem appears to arise from the fact that situations denoted by verbs may be either single indivisible phenomena or, more commonly, configurations of phenomena that may have gaps between them; it is left to the observer to evaluate whether a set of disjunct phenomena is to be treated as an aggregate. One can readily construct a spatial analog: we can say that a row of houses extends along a trajectory from one place to another even though at any given point on this trajectory there may be grass instead of a house. The decisive factor here is the judgment of what constitutes a row of houses, or in the case of Imperfective verbs, what constitutes a situation. Perhaps we could compensate for this problem of evaluation by making the truth conditions for situations observer-dependent.

The admissibility of temporal adverbials with respect to the Imperfective, or for that matter, with any verb, is governed by the following constraint:

> (23) A temporal adverbial must refer to a point within the now-window which supplies the time reference for the verb form, or to an interval containing such a point.

This constraint can easily be motivated. If $PRES^N(S(x))$ means that the the time interval t containing S(x) overlaps the time N, and if a temporal adverbial like *tádgé* 'yesterday' is similarly interpreted as meaning that t overlaps the time interval **yesterday'**, then some value(s) of t must satisfy both these conditions or else the sentence is ill-formed.

Thus for an Imperfective evaluated with respect to the speech act now-window, an accompanying temporal adverbial must refer to N_0 or an interval containing N_0, as seen in (24); for one referring to the narrative now-window, an accompanying temporal adverbial must refer to the narrative now-window, as seen in (25)-(27).

(24) *ÿi'dád/yá yagiyi'/*tadgé/*se'ɢán du-ˀi'n kaduní·g.*

(now/this day/*yesterday/*tomorrow 3-COMIT one.tells.3)

'They are telling him now/today/*yesterday/*tomorrow'

(25) N-L B123-5:

ˀa·ɢá·#ˀáwé wé na·daˀé·ya· ƛe du-ˀi·n kaduní·g wé x̣ít'a· šá·-dáx̣ wuduł'ī·x'i.

(at.that.time#FOCUS that Nāda.ēyā just 3-COMIT one-tells that adze head-ABL that.one.has.broken.3)

'Then they told (Imperfective) Nāda.ēyā that the adze had been broken off at the head.'

(26) N-L B202-3:

ˀadax̣#áwé c̓u#ɢuna-ˀa· ˀa-ˀi·tí-Ø dułyéx̣x̣.

(after.that#FOCUS even#other-one its-stead-LOC one.makes.3.ITER)

'After that they kept building (Iterative Imperfective) other (houses) to replace (the old ones).'

(27) N-L E374:

ye·sú has-ˀakat'ī·x̣' yú·.

(next PL-3.pound.3 thus)

'Next they pounded (Imperfective) it like this.'

Besides its present tense component, the Imperfective also has an aspect component, namely imperfective aspect. This component is necessary to account for the so-called 'imperfective paradox' (see Dowty 1979:133ff.), which manifests itself in Tlingit, as in English, in the observation that if (28b) was true at some time in the past, we may conclude that (28c) is true at present; but if (29b) was true at some time in the past, we may not conclude that (29c) is true at present. The reason for this is that part of the meaning of (29c) is that a house has come into existence as a result of the building activity, whereas this is not part of the meaning of (29b).

(28a) Theme *O-S-∅-x̣a**· (0: '-Process.) 'S eats O'

(28b) *λiỷ tu·x̣á* (meat we.eat.3) 'we are eating (Imperfective) meat'

(28c) *λiỷ wutuwax̣á·* (meat we.ate.3) 'we ate (Perfective) meat'

(29a) Theme *O-S-ł-yex̣** (0: ·-Process.) 'S makes O'

(29b) *hid tułayé·x̣* (house I.make.3) 'we are building (Imperfective) a house'

(29c) *hid wutułiyéx̣* (house I.made.3) 'we built (Perfective) a house'

Dowty (1972, 1977) attributes this difference between the meanings of the English equivalents of (29b) and (29c) to the effect of the progressive aspect on the meaning of (29b). In Tlingit, however, the semantic effect of this operator is seen specifically in the Imperfective mode; the Tlingit Progressive epiaspect has quite another effect.

We must therefore address the logical effect of a putative IMPERF operator for Tlingit. Like Dowty's PROG operator for English, the IMPERF operator must solve the 'imperfective paradox' by having the effect of nullifying the BECOME component of an accomplishment (i.e. 'to be building a house' does not imply the existence of a completed house). The Tlingit IMPERF operator, however, has another task which the English PROG operator does not, namely the selection of an exclusively stative meaning for Stative Imperfectives, as illustrated in (30).

(30a) Theme *O-∅-k'é·* (ga: ÿ-Stat.) 'to be/become good'

(30b) *ÿaké·* (Stative Imperfective) 'it is good'

(30c) *wuˀké·* (Perfective) 'it became/was good (and still is good)'

(30d) *gu*ɢ*aké·* (Future) 'it will be/become good'

(30e) *gak'é·ǯ* (Perfective Habitual) 'it (habitually) is/becomes good'

As seen in (30b), Tlingit Stative verbs have unambiguously stative meaning only in the Stative Imperfective. Elsewhere, they are ambiguous between stative meaning ('being') and transitional meaning ('becoming'), as seen in (30c-e). There are several ways to interpret this fact. This suggests either that becoming and being are both part of the meaning of the verb, or that becoming is the essential part of the meaning of the verb, and becoming implies (at least temporary) being. In Dowty's framework, we might represent the meaning of the Stative verb as BECOME$(\alpha)\alpha$, where α is a state. The difference between the meaning of the Imperfective and that of the other modes can thus be seen to rest in the fact that the BECOME(α) component of the Stative verb is nullified in the Imperfective, leaving only the state α. But note that this parallels exactly the effect that the aspectual component of the Imperfective has on Accomplishment verbs. For Tlingit, then, it would seem possible to maintain that one effect of the IMPERF operator is to nullify the BECOME(α) component of any verb.

I will leave it to future research to work out just how this effect is to be achieved. Informally, however, it seems clear that the IMPERF operator must be defined in terms of what Chung and Timberlake (1985) call CLOSURE: an imperfective situation is not limited by beginning or ending within the now-window with respect to which it is evaluated. Now BECOME(α) simply denotes the transition into a state, i.e. the beginning of the state. In an imperfective situation, then, this transition is outside the now-window, and thus in a sense invisible. Thus we may argue that the BECOME(α) component of the verb is not actually nullified, but simply falls outside the aspectual window.

I thus conclude that the primary meaning of the Imperfective mode is aspectual. The tense component of the meaning may be attributed to conventional implicature. In the next section, we will examine the hypothesis that the same is true of the Perfective mode, but conclude that although this hypothesis is tempting, it may be necessary to maintain that the tense component of the meaning is primary for a subset of Perfectives.

8.2.1.2. The Perfective mode

The Perfective mode is formed with the order +4 prefix *ÿu-*; the Assertive Realis also takes the I-component of the classifier. The Atelic Perfective and the Non-assertive/Irrealis Telic Perfective take the ‘-stem; the Telic Assertive Realis takes the ÿ-stem.[19]

In general, the Perfective not only denotes the fact of a past situation, but also the persistence of the state of affairs resulting from the situation. We will thus analyze the Perfective mode as involving two distinct semantic components: PAST TENSE and present-tense resultative aspect. Since the present is the unmarked tense, we will refer to the latter component simply as the RESULTATIVE ASPECT component. With the optional exception of one lexical aspect category, all Perfectives appear to have both semantic components. The exceptional category is the Stative Eventive verb, whose Perfective is most commonly interpreted as a resultative stative with present-tense reference, but like other verbs, can also be interpreted as referring to a past-tense event with persistent result. (It will also be noted that the Perambulative Perfective has a similar present-tense meaning; see the discussion around (65) in this section.)

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[19] There are also different prefix contractions for Telic vs. Atelic Assertive Realis 2SG and 3 subject; see 5.2.(9e-f).

The resultative meaning is especially apparent with verbs classifiable as EVENTS (this term is roughly equivalent to Vendler's Achievement and Accomplishment categories combined), as seen in (31b).[20] Here the (Assertive) Perfective contrasts implicitly with the Decessive Perfective, which specifies that the state resulting from the event is no longer valid at N_0, as seen in (31c).

(31a) Theme *O-S-ł-yex̣** (∅: ·-Process.) 'S makes O'

(31b) *híd ʔá-' wduƛiyéx̣*

(house there-LOC one-made.3)

'a house was built (Perfective) there (and is still standing there)'

(31c) *híd ʔá-' wdułye·x̣-í·n*

(house there-LOC one.made.3-DEC)

'a house was built (Decessive Perfective) there (but is no longer standing there)'

(31d) *ƛé·ł híd ʔá-' wdułyex̣*

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[20] I take this term from Bach (1986). In terms of Dowty (1979), events may be equated with verbs containing the BECOME operator. Note, however, that according to Dowty (1979:124f.) not all Accomplishments contain BECOME.

(not house there-LOC one-made.3)

'a house was not built (Perfective) there'

(31e) *ƛé·ł híd ʔá-ʼ wduɬye·x̣-i·n*

(house there-LOC one.made.3-DEC)

'a house was not built (Decessive Perfective) there (but one may have since been built)'

However, the existence and nature of the resultative-aspect meaning is not always so obvious, even with event verbs, as seen in (32b). Nevertheless, it seems necessary to conclude that some sort of resultative meaning is involved in all Perfective verbs in order to account for the semantics of the Decessive forms, as in (32c).

(32a) Theme *O-S-∅-ǯa*ɢ* (∅: Event.) 'S kills O'

(32b) *ʒískʷ ʔaʻwaǯá*ɢ

(moose 3.killed.3)

'he/she/it killed (Perfective) a moose'

(32c) *ʒískʷ ʔawuǯaʼ*ɢ-i·*n*

(moose 3.killed.3-DEC)

'he/she/it killed (Decessive Perfective) a moose (but the expected aftermath of this event is invalid or no longer to be found, e.g. predators devoured the meat or rendered it useless, or the memory of the killing has faded)'

We will return to the semantics of the resultative aspect below in this section and in 8.3.2.2.

Involuntary Eventive verbs have meanings similar to Stative verbs, differing from Stative verbs principally in that they lack a Stative Imperfective; for Involuntary Eventive verbs, the Perfective subsumes the meanings of both the

Imperfective and the Perfective of Stative verbs. Compare, for example, (33b) and (33b) with (34b).[21]

(33a) Theme *qu-S-s+D-ti*‘* (ɢa: ỹ-Stat. with irregular Assertive Impf. stem *-ti‘*) ‘S is alive, born; S exists’

(33b) *quʒiti‘* (Imperfective) ‘he/she is alive; it exists’

(33c) *qustiỹi‘n* (Decessive Imperfective) ‘he/she was alive (but is no longer); it existed (but no longer does)’

(33d) *quwʒiti‘* (Perfective) ‘he/she was born (and is alive); it came into existence (and still exists)’

(33e) *quwustiỹi·n* (Decessive Perfective) ‘he/she was born (but is no longer alive); it came into existence (but no longer exists)’

(34a) Theme *O-∅-na*·* (na: Event.) ‘O dies’

(34b) *wu‘na‘* (Perfective) ‘he/she is dead; he/she died (and is dead)’

(34c) *wuna‘wú·n* (Decessive Perfective) ‘he/she was dead (but is no longer); he/she died (and is no longer dead)’

Thus, while the Perfective of Involuntary Eventive verbs may, as elsewhere, have both resultative-aspect and past-tense meaning (‘he/she died (and is dead)’), it more frequently appears to have only the resultative connotation (‘he/she is dead’). We will distinguish this latter type of Perfective by calling it the RESULTATIVE PERFECTIVE, as opposed to the ordinary Perfective, which we may call the PAST PERFECTIVE.[22]

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[21] Recall that whereas the Imperfective of a Stative verb indicates a state (α), the other modes are ambiguous, indicating either state α or transition into that state (BECOME(α)).

[22] The assertion that these two types of Perfective differ semantically is in part based on the semantic difference found in the Decessive Perfective (see 8.3.2.2). This can be seen by comparing the meanings of (32c) and (34c): *wuna‘wú·n* means simply that the state resulting from dying has ceased to be valid, whereas *ʔawuǯa‘ɢí·n* does not so obviously mean that the state resulting from killing has

It is difficult, however, to find truly conclusive evidence that the resultative Perfective of Involuntary Eventive verbs is semantically distinguishable from the past Perfective. The only test I have found involves cooccurrence of Perfective forms with temporal adverbials, and the results are not unambiguous.

(35a) Theme *PO-x' ye'#O-∅-ti*'* (na: ÿ-Stat. with irregular Assertive Impf. stem *-ti'*) 'O is at PO'

(35b) *ÿi'dád hid ʔá-' yé'#ÿati'.*

(now house there-LOC thus#3.is)

'There is (Stative Imperfective) a house there now.'

(35c) *tá·gʷ ka-nax̣ hid ʔá-' yé'#ÿati'.*

(winter surface-PERL house there-LOC thus#3.is)

'There has been a house there all winter.'

(35d) *č'a#ƛágʷ hid ʔá-' yé'#ÿati'.*

(ipse#always house there-LOC thus#3.is)

'There has always been a house there.'

(36a) Theme *PO-x' O-ka-∅-ha*·* (0: Event.) 'O becomes located at PO'

(36b) *ÿi'dád hid ʔá-' ka'wahá·.*

(now house there-LOC 3.has.become.located)

'There is (Resultative Perfective) a house there now.'

(36c) *tá·gʷ ka-nax̣ hid ʔá-' ka'wahá·.*

(winter surface-PERL house there-LOC 3.has.become.located)

'There has been a house there all winter.'

(36d) *č'a#ƛágʷ hid ʔá-' ka'wahá·.*

(ipse#always house there-LOC 3.has.become.located)

'There has always been a house there.'

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ceased to be valid.

(37a) Theme *O-S-ł-yex̣** (∅: ·-Process.) 'S makes, builds O'

(37b) *ÿi'dád híd ʔá-' wduƛiyéx̣.*

(now house there-LOC one.has.built.3)

'A house has now been built (Perfective) there.'

(37c) ?*tá·gʷ ka-nax̣ híd ʔá-' wduƛiyéx̣.*

(winter surface-PERL house there-LOC one.has.built.3)

WS: 'A house has been being built there all winter.'

(37d) ?*č'a#ƛágʷ híd ʔá-' wduƛiyéx̣.*

(ipse#always house there-LOC one.has.built.3)

WS: 'A house has always been built there.'

(38a) Theme *O-S-∅-ǯa*ɢ* (∅: Event.) 'S kills O'

(38b) *ÿi'dád ʒískʷ ʔa'waǯá*ɢ.

(now moose 3.killed.3)

'He/she killed (Perfective) a moose.'

(38c) ?*ta·d ka-nax̣ ʒískʷ ʔa'waǯá*ɢ.

(night surface-PERL moose 3.killed.3)

WS: ?'He killed a moose all night.'

(38d) ??*č'a#ƛágʷ ʒískʷ ʔa'waǯá*ɢ.

(ipse#always moose 3.killed.3)

Temporal adverbials specifying a duration of time like *tá·gʷ kanax̣* 'all winter' and *č'a#ƛágʷ* 'always' are completely compatible with resultative Perfectives (36), as they are with Imperfectives (35). With ordinary Perfectives, however, such adverbials are unusual; in a narrative, for example, Imperfectives would ordinarily be used in place of the Perfectives in (37c-d) or (38c-d). EN found all these sentences odd, whereas WS indicated that all but (38d) were acceptable in certain circumstances.

On the strength of this evidence, then, I provisionally conclude that resultative Perfectives, unlike past Perfectives, are semantically present-tense resultative statives.

It seems possible to argue that, at the most abstract semantic level, the Perfective is simply unmarked for tense and aspect; this analysis is implicit in Figure 47 in 8.1.3. According to the principle of underspecification posited there, the Perfective is construed with the unmarked tense and aspect operators, namely PRES and RESULT; in other words, S(x) is interpreted as PRES^{N}(RESULT(S(x))). Let us describe RESULT(S(x)) informally as referring to the state of affairs resulting from or expected to result from the completion of S(x). For example, if S(x) refers to getting tired, then RESULT(S(x)) refers to being tired; if S(x) refers building a house, RESULT(S(x)) refers to a house being built and standing; if S(x) refers to eating, RESULT(S(x)) refers to being sated--there could conceivably be other expected results as well. The Perfective would thus be interpretable as meaning that this resultant state of affairs is true at N. We could then propose a conventional implicature to the effect that PRES^{N}(RESULT(S(x))) implies PAST^{N}(S(x)): if we can see the state of affairs resulting or expected to result from the occurrence of S(x), we may infer that S(x) has taken place.

While this account of the semantics of the Perfective has the appeal of elegance, there is a problem with it. This analysis entails that the resultative aspect meaning is primary and the past tense meaning is implicit. Since the truth values for a proposition are calculated from its primary meaning, we would expect, for example, those of the Negative Perfective to be calculated from the resultative aspect meaning rather than from the past tense meaning. This is true of the resultative Perfective but not, as far as I can see, of the past Perfective. For example, if the primary meaning of (31b) is RESULT(S), i.e. 'a house is standing there (as a result of being built)', then its negative (31d) should mean NEG(RESULT(S)), i.e. 'a house is not standing there (as a result of being built)'. But this is not in fact what (31d) means; it rather means 'a house was not built there'. The fact that a house is not standing there might indeed be due to the fact that it was not built, but it might also be due to the fact that it succumbed to the elements or was destroyed or moved subsequent to being successfully built; that is, the truth conditions of the negative of the resultative aspect meaning may be satisfied by either the Negative Perfective (31d) or the Decessive Perfective (31c). It therefore seems necessary to conclude that the past tense meaning is not simply attributable to conventional implicature. We are left with a choice between two less elegant analyses: either both resultative aspect and past tense meanings are primary for all Perfectives, or the resultative aspect meaning is primary in resultative Perfectives and the past tense meaning is primary in past Perfectives. Even if we cannot claim that the Resultative meaning is primary in the past Perfective, however, it may be possible to argue that the past meaning is somehow to be adduced from the resultative meaning. A tentative statement to this effect will be proposed in 8.3.2.2; see especially (224).

Let us now attempt to provide formal representations for the two semantic components of the Perfective. We will first consider the past-tense meaning. This may be represented by either of the diagrams in Figure 50. Diagram (a) indicates that PAST(S(x)) is true with respect to N_i. But this is equivalent to specifying that there is some other now-window, say N_{i+1}, which precedes N_i, and with respect to which S(x) is true, as shown in diagram (b).

(a) N_i

--------(----------------)--------

PAST(S(x))

(b) N_{i+1} N_i

--------(------)----------(------)--------

S(x)

Figure 50. The past tense

We thus arrive at the provisional logical statement of the meaning of the past tense in (39).

(10) $PAST^{N_i}(S(x))$: S(x) is PAST with respect to N_i if, for an interval N_{i+1} temporally preceding N_i, S(x) is true for some subinterval within N_{i+1}.

According to this formulation, then, past tense reference has the effect of creating a new now-window, arbitrarily labeled N_{i+1}, which lies in the past relative to N_i. This

N_{i+1} may itself serve as the now-window with respect to which some other past or future operator is evaluated.[23]

Let us now consider the resultative-aspect meaning of the Perfective. The meaning typically associated with resultatives is most clearly seen with event verbs. These event verbs, according to Dowty (1972), have as a component of their meaning the semantic operator BECOME. Let us attribute the resultative aspect meaning to a semantic operator RESULT* which is defined as the inverse of the BECOME operator:

(40) RESULT*(BECOME(α(x))) = α(x)

This says that a RESULTANT STATE (RESULT*) resulting from a transition to state α(x) is equivalent to the state α(x) itself. If a situation S(x) is an event containing BECOME(α(x)) (the transition to state α(x)), then, RESULT*(S(x)) is equivalent to the state α(x). We can then stipulate that RESULT*(S(x)) is a special case of RESULT(S(x)):

(12) If S(x) is BECOME(α(x)), then RESULT(S(x)) is equivalent to RESULT*(S(x)), i.e. α(x).

This does not, however, give us a value for RESULT(S(x)) if S(x) is other than a BECOME predicate. As mentioned at the end of the preceding section (see (30) in 8.2.1.1), Stative verbs unambiguously have stative meaning only in the

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[23] Thus, for example, an English Past Perfect, if semantically a past-in-the-past, could be represented by the formula $PAST^{N1}(PAST^{N0}(S(x))$, where N_0 is Reichenbach's S and N_1 is Reichenbach's R, which is automatically generated by the inner PAST operator according to the above definition.

Imperfective; in the Perfective, they behave as BECOME predicates. According to Dowty, the only other semantic predicate type besides the stative predicate and the BECOME predicate is the DO predicate. What, then, is the meaning of RESULT(S(x)) if S(x) is DO? Informally, we want to claim that RESULT(DO) refers to the accomplishment of the expected results of the activity in question. This will be further discussed in 8.3.2.2.

We may now describe the meaning of the past Perfective as in (42), which may be expressed graphically by the diagrams in Figure 51. In diagram (b), the past tense component is reinterpreted as in Figure 50(b).

(42) $\text{PAST}^{N_i}(S(x))$ AND $\text{PRES}^{N_i}\text{RESULT}(S(x))$

(a) N_i

--------(--------------------)--------

PAST(S(x)) AND

RESULT(S(x))

(b) N_{i+1} N_i

--------(------)-----(------------------)--------

S(x) RESULT(S(x))

(c) N_{i+1} N_i

--------(------){----(------------------)}-------

S(x) RESULT(S(x))

Figure 51. The past Perfective

Diagram (b), however, does not capture explicitly the fact that RESULT(S(x)) is true not only at N_i, but for the interval between N_{i+1} and N_i. RESULT(S(x)) begins, in fact, at the moment when S(x) is completed, i.e. at the moment when the BECOME predicate within S(x) is first true. Thus RESULT(S(x)) is true throughout the interval enclosed by curly brackets in diagram (c).

Thus, for example, the situation in (31b) ('a house was built (Perfective)') is true only if the house which was built is still standing there; if the house had been demolished and a new house built on the same spot, (31b) would be not be appropriate; instead, the Decessive form (31c) would be used. One could attribute this to the fact that the situation in (31b) makes reference not just to any house but to a certain house, and the result of this situation must accordingly make reference to the same house. But what about the relationship between the Assertive and Decessive Perfectives in (43)?

(43a) Theme *ˀa-0+D-gan** (Ga: Event.) 'the sun shines'

(43b) *ˀawdigaʼn* (Perfective) 'the sun is shining'

(43c) *ˀawdagaʼní·n* (Decessive Perfective) 'the sun was shining'

Sentence (43c) would be used for a situation where the sun was shining at some time in the past and subsequently stopped shining, regardless of whether the sunshine has resumed at present. Thus the plain Perfective is appropriate only where the SPECIFIC INSTANCE OF THE STATE RESULT(S(x))--in this case, the specific interval of sunshine referred to the speaker in (43b)--is true, not just where the situation generally denoted by the verb is true.

If we state the RESULT operator as the function of a specific situation rather than of a proposition, then, it is easy to demonstrate that in Figure 51(b) there can be no point between N_{i+1} and N_i where RESULT(S(x)) is false. If such a point did exist, it would divide α(y) into two separate instances. But this contradicts the initial assumption that α(y) represents a single instance of α. This is the reason why the schetic operators are here treated as functions of specific situations rather than as functions of generic logical predicates.

The resultative interpretation of the Perfective of a Involuntary Eventive verb is represented by the diagram in Figure 52. The resultative Perfective is equivalent to minus the past-tense component, that is, simply RESULT(S(x)). Since Involuntary Eventive verbs are semantically BECOME predicates, RESULT(S(x)) is here equivalent to RESULT*(S(x)), as noted in (41). This means that the resultative Perfective is semantically indistinguishable from the Imperfective of a Stative non-Eventive verb, since, as we have seen seen, RESULT*(S(x)) denotes a state, and the resultative Perfective predicates that this state takes place in the present with respect to N.

(a) N_i

--------(--------------------)--------

RESULT*(S(x))

Figure 52. The resultative Perfective

There is one other isolated case where the Perfective has present-tense meaning. This is with the PERAMBULATIVE aspectual derivative of motion verbs, characterized by the string *PO-d* (na-) ‘moving about relative to PO’; the PO *ʔá* ‘3REC, it, there’ is semantically transparent here, hence *ʔá-d* (na-) ‘moving about’. The Perfective of a Perambulative has only a present-tense imperfective-aspect interpretation, as seen in (45).

(45a) Theme *S-Ø-gud** (Motion) ‘single S walks, goes overland’

(45b) *ʔád wu‘gu‘d* (Perfective) ‘he/she/it is walking about’

(45c) *ʔád wugu‘dĭ·n* (Perfective Decessive) ‘he/she/it was walking about (and has since ceased walking)’

I have at present no way of accounting for the present-tense interpretation of the Perfective in (45b). We should note, however, that the Perfective of the Perambulative is semantically similar to the Imperfective of the Progressive, given in (46b). Moreover, the Perfective of the Progressive does not occur. Thus the Progressive and the Perambulative are both defective in that neither has a form with past-tense perfective interpretation.

(46a) *ÿa‘#nagúd* (Imperfective Progressive) ‘he/she/it is walking along’

(46b) *ÿa‘#nagúdi‘n* (Decessive Imperfective Progressive) ‘he/she/it was walking along (and has since ceased walking)’

8.2.1.3. The Realizational mode

The Realizational mode is the rarest among the Tlingit schetic categories. It appears to be a relative of the Perfective that was once more widespread in the language but has become largely restricted to elevated speech, or as WS puts it, the

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'classical language', confined mainly to songs and oratory. In EN's texts, it is restricted to a few recurrent expressions that seem lexicalized, such as (47b) and (48c). It is in general translated like the Perfective, but seems to convey an impression of vividness or immediacy.

(47a) *MANNER O-∅-ni*'* (na: Event.) 'it happens (thus) to O'

(47b) N-L F77:

wá·#sáyá#dé· ˀad-na·ní·

(how#WHQ.FOCUS#now thing-it.happens.to)

'What on earth has happened (Realizational) now?'

(48a) *MANNER O-∅-ti*'* (na: ÿ-Stat.) 'O is/becomes (thus)'

(48b) *yé·#wu'ti'* (Perfective) 'it became that way'

(48c) *yé·#na'tí·* (Realizational) 'it became that way' ('more classical' than (48d) according to WS); 'let it be so' (according to EN)

(48d) EN: *yé·#na·tí·, a·n-qá·-wu x̣ad-Gašá·.*

(thus#3.has.become, land-man-POSS me-let.3.marry)

'Let it be (Realizational) that a rich man marries me (Hortative).'

The phrase *yé·#na·tí·* is used by EN to preface performative utterances such as (48d); this exemplifies the type of utterance that accompanies a charm.[24] The Realizational is also used with the particle *de'#šé* or *de'#šgí.*[25]

(49) WS: *de·#šé cu hé·-x̣ ya·#ga·gú·d*

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[24] The name for such charms is *hé·x̣ʷa'*; these involve imitative magic as well as performative utterances, and are used to invoke strength, skill, and success, e.g. for children, pets, and as in this case, young women at menarche.

[25] The meanings of the enclitics *#šé* and *#šgí* are unclear; *#šgí* is attested in the Interior Tlingit phrases *de·#šgí* 'for/after a long time' and *qa·x̣ʷá·#šgí* 'finally, at last'.

(already#CLITIC again over.here-PERT along#3.is.going)

'And here he comes (Progressive Realizational) again!' ['sort of a poetic expression' according to WS]

(50) D-D1 I84-5:

de·#šgí ya·#s-ga·ʔá·d, de·#šgí ya·#s-ga·ʔá·d ʔá.

(already#at.last along#PL-3.were.walking already#at.last along#PL-3.were.walking 3.REC)

'They walked and they walked (Progressive Realizational).

ƛax̣ wá· yu·#s-ku·ʔá·d de xi·waʔád ƛe.

(very how repeatedly#PL.3.have.walked already it.has.become.dusk just)

After they had walked (Consecutive) a very long way, it became dusk (Perfective).'

Example (51b) is the only instance where I have heard the Realizational used spontaneously in conversation.

(51a) *O-ÿa-S-λa*G* (na: Event.) 'S overcomes/achieves/wins O'

(51b) *ÿanax̣tuwaλá·*G (Realizational) 'we've made it (at last)!'; 'we've made it (and here we are)!'

(51c) *ÿawtuwaλa·*G (Perfective)' 'we've made it'

The Realizational is much better attested in songs; examples are (52) and (53).

(52) D2 O: First Song:

šu-nɫihá·š ʔax̣-ʔadawú·λ-i,

(end-has.floated.away my-trouble/battle-POSS)

'My trouble/battle has trailed (Realizational) away (as if floating over the water);

*ʔax̣-ɫi·ɫakʷ-hás húl-i ʔa-ná*G *yé·#nax̣ʒigí·d.*

(my-grandparent#PL house-POSS it-away.from thus#I.have.moved.self)

I have put (Realizational) my grandparents' house behind me.'

(53) Song:

da·g#gaɫisʔi·s du-tu·-wú ʔi-yé·ɫ-i.

(out.to.sea#3.is.floating 3-inside-POSS your-raven-POSS)

Your Raven's soul is floating (Progressive Realizational) out to sea.

There are 21 verbs clearly identifiable as Realizational forms among the 103 songs recorded in Swanton (1909:390-415). Of these, 7 Realizationals of non-Stative verbs are translated using the English Present Perfect and 6 using the English Past. Two Realizationals of Stative verbs are translated with the English Present, as is the only instance of the Progressive Realizational in the corpus.

Because of its rarity and lack of productivity, it is difficult to elicit examples that eludicate clearly the semantics of the Realizational. In most cases, as noted above, it translates like the Perfective. However, unlike the Perfective, it can occur in the Progressive epiaspect, as in (49), (50), and (53), where it translates like the Imperfective of the Progressive.

I might raise as a tentative hypothesis, however, that like the resultative Perfective, the Realizational refers to a state resulting from a past event, or perhaps more precisely, treats the past event as if it were being witnessed by the speaker. This would account for the above-mentioned sense of vividness or immediacy. I might further speculate that this is the reason the Realizational is appropriate in songs and oratory; it recalls an event as if it were happening now, and in this way, so to speak, brings it into the inmanent now-window of mythical time.

8.2.1.4. The Future mode

The Future mode is formed with the order +4 prefixes *ga-ŭ-ɢa-* and the ·-stem for Assertive Realis varying with the ‘-stem elsewhere. Semantically, the

Future is characterized by future tense reference; it has no aspectual connotation. As seen in (54b), the use of the Future encompasses the meanings of its English near-equivalents 'will V', 'to be going to V', 'to be to V'; as seen in (55), in appropriate contexts the Future may translate 'can V' as well:

(54a) *O-S-∅-ǯa*ɢ* (∅: Event.) 'S kills O'

(54b) *kuqaǯá·*ɢ (Future) 'I will kill it'; 'I am going to kill it'; 'I am to kill it'

(55) N-L E25-6:

*ʔa-tú·-x', ʔišagú·g-u ʔa·*ɢ*á·#cá ʔa-ká-· ye·#g*ɢ*i·nú·g,*

(its-inside-LOC, you.know.how-SUB then#only.then its-surface-LOC down#you.will.sit,)

'Besides, you can (Future) sit on [a skin sled] only if you know how,

*ha ɬ#ʔišagú·g-u#quʔa ƛ́éɬ ʔa·dé yan*ɢ*iyaλa·*ɢ*i yé.*

(well not#you.know.how-SUB#however not thus you.might.achieve.it-ATTR way)

but if you don't know how, you can't make it.' [lit. '...there is no way you might (Attributive Potential) achieve it']

Example (55) is particularly interesting because of the antithesis between the Future, which here translates 'can V', and the construction with the Attributive Potential form, which quite regularly translates English 'cannot V' (literally, 'there is no way...might V'). This example underscores the fact that Tlingit has no exact equivalent for English 'can', but does have a near-equivalent for 'cannot'.

Another frequent function of the Future is to give instructions or prescriptive commands and exhortations. This use, which we may call the PRESCRIPTIVE use of the Future, is illustrated in (56) and (57); it may translate as an English Imperative or *let*-hortative, or as 'must V'.

(56) N-L C440:

ya·#gax̣yi·yá·, yi·-wú·w-u ságʷ#áwé.

(along#you.PL.will.pack, your.PL.lunch-POSS future#FOCUS) .

'[You must] carry (Progressive Future) it in your pack; it is to be your lunch.'

(57) N-L E552-3:

ƛe da·x'u·n yagyi· x̣'á·-náx̣ ƛéł ł̓ita· ʔa·-dé gax̣yiši·,

(just four day interval-PERL not knife it-ALL you.PL.will.move.hand)

'You must not touch (Negative Future) a knife for four days,

qa ł̓i#ł da·#sá yałik'ats'i ʔád ł̓i#ł ʔá-x̣ yiši·-ɢ.

(and don't#not what#WHQ 3.is.sharp.edged-ATTR thing don't#not it-PERT you.PL.move.hand.repeatedly-OPT)

and don't touch (Iterative Prohibitive) anything with a sharp edge.'

Like the Imperfective and Perfective, the Future may be temporally evaluated with respect to N_0 or to a narrative now-window, or any past now-window, as seen in (58), where the Future is evaluated with respect to the time indicated by the main verb.

(58) N-L D897:

*ʔá ʔa-tu·-wú-de#ʔáwé š-kuqadaǯá·*ɢ *yú· ʔax̣-tu-wati·.*

(it its-mind-POSS-ALL#FOCUS REFL-I.will.kill thus my-mind-is)

'The more I thought about it, the more I felt like killing myself.' [lit. 'due to the thought of it, I felt (Imperfective) I was going to kill (Future) myself'.']

The Future, as well as its kin the Potential, Imperative, and Hortative, may also be evaluated with respect to an anticipated or hypothetical now-window, which is usually provided by a dependent clause in the sentence or by a preceding sentence. An example of this is seen in (55), where *ʔishagú·gu'* 'if you know how' provides the hypothetical condition. A similar example is (59), where the first sentence provides the condition (see 8.5.3 for the construction with *#ʔú'š̓*). In such cases the most natural translation is with English 'can'.

(59) N-L D936-8:

yi·dád#ʔú·š#gi č̓a#wá· yati·-yi ʔa· xá·na· ƛ̓éł ʔax̣-ʔi·x̣ x̣'e·ta·n.

(now#if.only#INTERROG just#how it.is-ATTR one evening not me-PERT 3.speaks.repeatedly)

'I wish for just one evening he would not speak (Negative Iterative Imperfective) a word to me;

ʔa·Gá·#šágdé· ʔa-yá-· yán-de gqwahá·n.

(then#perhaps its-face-LOC rest-ALL I.will stand)

then perhaps I could stand it (Future).'

The future tense component of the Future tense may, analogously with the past tense component of the Perfective, be represented by the diagrams in Figure 53, and given a logical form like that in (60):

(a) N_i

---------(--------------)---------

FUT(S(x))

(b) N_i N_{i+1}

---------(------)--------------(------)---------

S(x)

Figure 53. The future tense

(60) $\mathrm{FUT}^{N_i}(S(x))$: $S(x)$ is FUT with respect to N_i if, for an interval N_{i+1} temporally following N_i, $S(x)$ is true for some subinterval within N_{i+1}.

We will claim, however, that the Tlingit Future shares this tense connotation with the other future modes: the Potential, the Imperative, the Hortative, and the Admonitive (see 3.3.2.2, especially Figure 14). Since these modes do not differ in tense or aspect, they must be taken to differ in other respects. It seems clear that the Deontic modes (Imperative, Hortative, and Admonitive) differ from the Independent future modes (Future, Potential) in that they predicate a desire for a future situation to obtain or not to obtain. The Potential, on the other hand, seems to differ from the Future in that it denotes what the speaker conceives of as being the case in the future of SOME POSSIBLE WORLD rather than in the future of THE REAL WORLD. It is to this mode that we turn next.

8.2.1.5. The Potential mode

The Potential mode is formed with the order +4 prefixes *u-ASP-ɢa-*, the I-component of the classifier, and the ‘-stem (alternating with the ÿ-stem for Telic verbs). Semantically, the Potential has future tense reference and no aspectual connotation, like the Future. It occurs mainly in relative clause constructions to be discussed below. Where it occurs in main clauses, it usually follows a phrase that provides a future context. In (61) and (62) this is a phrase with the clitic *#cá* ‘only then’, where the Potential clause translates roughly ‘in that case...can/could V’. Another relatively productive use of the Potential is after an Imperative, where the

Potential clause translates ‘or else...may/might/could V’. This is exemplified in (63).[26]

(61) N-L E154-5:

č’u#ƛe yé· ʔa-x̣án-d ʔayi·ł’ú·n-i#cá ɢ*iyaʔú·n.*

(even#just thus its-proximity-PUNCT you.have.moved.hunting #only.then you.may.shoot.3)

‘Once you’ve crept up to it, then you can shoot it (Potential).’

(62) N-L D32:

ha quštuyáx̣ ɢ*a·#yati·, č’a#ʔax̣-ǯi-ná*ɢ*#cá* ɢʷ*a·ła·x*ʷ *yúʔá.*

(well so.what all.right#3.is, just#my-hand-away.from#only.then 3.may.starve QUOT)

‘That’s all right; I don’t care; if she starves on me, she starves,’ she said.’ [more lit. ‘So what; it’s all right; in that case she can starve (Potential) away from me, (she) said.’]

(63) EN

*č’a#gu·t’a-*ɢ*á·-n#sá#cá yé·#nq*ʷ*asini·*

(ipse#which.place-VICIN-FUT#WHQ#only.then thus#I.may.do.3)

‘One of these days I’ll do it (Potential).’ (*č’a#gu·t’a*ɢ*á·n#sá* ‘one of these days’)

(63) Song:

č’a#yá·-x’ ɢ*anú, č’a#yá·-x’* ɢ*anú, ʔi-x̣duwaǯa·*ɢ.

(just#here-LOC you.sit!, just#here-LOC you.sit!, you-one.may.kill)

‘Sit right here; sit right here, [or else] someone might kill you (Potential).’

More varied types of examples are found among the songs recorded by Swanton (1909); among them are (64)-(66).

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[26] Story calls such forms ‘desiderative A-paradigms’ (Story 1966:11.221) and correctly surmises that they are to be identified with ‘inabilitative structures’ (Story 1966:3.22). Neither of her examples is cited in context, but the word ‘(then)’ in the translations implies contexts such as those mentioned here.
ha·-d ɢ*iyagu·d* (here-to you.may.come) ‘(then) (you) come here’

(64) JRS09:397, song (34):

dé·x̣-tú#cé kigsʔádi ÿád-x'-i č'a#ʔa-ka·y-í·-x̣ čuš-ɢiƛiye·x̣.

(two-mind#ADMON.CLITIC Kiks.ádi child-PL-POSS just#its-facsimile--POSS-PERT REFL-you.may.make)

'Don't be double-minded, Kiks.ádi's children, or something might happen to you.' [corrupt translation: lit. 'Watch out or you might make yourself (Potential) into a facsimile of double-mindedness.']

(65) JRS09:405, song (61):

yá·-x'#g^{w}*á· ʔax̣-hunx̣u-has-*q^{w}*a·qasiti·n.*[27]

(here-LOC#behold my-elder.brother-PL-I.may.see.3)

'Sometime I might see (Potential) my brothers.'

(67) JRS09:408, song (75):

da·ɢu qá·-ǯ#sá x̣ad-$ɢ^{w}$*a·x̣sine·x̣?*

(which man-ERG#WHQ me-3.may.save)

'Where is the person that will save me?' [lit. 'Which person might save (Potential) me?']

Note that as with the Future, the time reference of the Potential depends on the current now-window. In (68) this is in the past with respect to N_0.

(68) N-L C966-8:

wá·#sá ƛéɬ č'a#ʔá-· yé·#yʔu· ƛe has-šayi·yƛe·ɢ-ú-de?

(how#WHQ not ipse#there-LOC thus#you.PL.left just PL-you.PL.seized.3-SUB-ALL)

'Why didn't you just leave [the hides] alone until you arrested them?

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[27] This example illustrates the telescoping of two pluralizing morphemes; see 4.1.7. Note that in this case it creates a problematic complex: the variant *hunx̣u* of *húnx̣*^{w} 'elder brother' usually occurs only before the plural suffix *-hás*, which in this case is deleted on the surface.

has-du-waɢ-ká·-x'#cá ʔa·-x̣ yé·#nax̣yi·ysini·.

(PL-3-eye-surface-LOC#only.then it-ABL thus#you.PL.may.take.3)

Then you could have confiscated (Potential) them in their presence.'

All these cases may be characterized as specifying that in one among several alternative future 'possible worlds', the speaker has reason to expect a certain outcome; this expected outcome is expressed by the Potential form. We shall see in 8.3.2.3, moreover, that the Decessive Potential has the same use, except that the Decessive adds the qualification that the alternative worlds are hypothetical.

I have no unelicited examples of the Irrealis Potential, but when elicited, this form is consistently found to be identical with the Realis Potential, as seen in (69b-c). The Potential is thus unusual in being the only mode where the I-component of the classifier is present in non-Attributive Irrealis forms.

(69a) Theme *O-S-s-tin** (ɢa: Invol. Event.) 'S catches sight of O; S sees O'

(69b) *gʷáɬ qʷa'qasiti'n* (maybe I.may.see.3) (Irrealis Potential) 'I might see it'

(69c) *gʷáɬ ƛe·ɬ qʷa'qasiti'n* (maybe not I.may.see.3) (Irrealis Potential) 'I might not see it'

(69d) *ƛé·ɬ ye'#gʷqasati'n* (not ASP#I.will.see.3) (Irrealis Future) 'I will not see it'

The reason for this irregularity may lie in the scope of the logical operator corresponding to the epistemic status of such forms, and in particular, the scope of negation. Note, first, that it does not appear to matter semantically whether the scope of negation includes the future tense in (69d); one could paraphrase this either as 'it is not the case that I will see it' or as 'it will be the case that I not see it'; this is generally true of the relationship between tense and negation. It is not true, however, of the scope of negation with regard to potential status in (69c), which can be paraphrased as 'there is a possibility that I will not see it' but not as 'there is no possibility that I will see it'. If we define a POT operator as in (70), then, sentences (69d) and (69c) will have the logical structures given in (71) and (72). We may thus account for the fact that there is an I-component in the Negative Potential by the generalization in (73).

(70) $\mathrm{POT}^{R}(S(x))$ means that situation $S(x)$ is true in some world W which is possible but not necessarily likely with respect to the real world W_0 and is thus outside the reality-window R (cf. McCawley 1981:276ff.).

(71) Representation of (69d): $\mathrm{NEG}(\mathrm{FUT}^{N0}(S(x)))$.

(72) Representation of (69c): $\mathrm{POT}^{R}(\mathrm{NEG}(\mathrm{FUT}^{N0}(S(x))))$.

(73) In modes whose Realis form requires the I-component of the classifier, the I-component is lacking in the Irrealis form just in case all logical components of this mode fall inside the scope of the negative operator in negative sentences.

In effect, then, the hypothesis is that the I-component is not deleted in a negative Potential sentence because the scope of negation does not include the operator POT.[28]

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[28] Note, however, that although this principle accounts for the fact that the I-component is not deleted in negative Potential forms, it has nothing to say about why this is also true of dubitative Potential forms such as that in (69b)--recall that the category Irrealis includes both negatives and dubitatives. Dubitative sentences always contain particles and clitics with meanings like 'perhaps' and 'I guess'. It therefore seems plausible that the Potential mode is inherently dubitative, referring as it does to an alternate possible world. If so, we may reason that adding a dubitative particle like *gʷáł* 'perhaps' would have no effect on the semantic structure of the predicate, and for this reason does not cause the deletion of the

The most frequent use of the Potential mode is in relative clauses (for which Attributive verb forms are used) modifying a generic head noun; such NPs translate roughly as ‘N such that...may/can/could V’. Note in particular the relationship between the meanings of (59), reproduced in normalized form as (74), and (75): both sentences imply a series of possible worlds among which is one in which there is a person that is able to help. Other examples are (76)-(78).

(74) *da‘ɢʷ qá’-ʒ#sá x̢ad-ɢʷa‘x̢sine‘x̢?*

(which man-ERG#WHQ me-3.may.save)

‘Which person might/could save me?’

(75) *x̢ad-ɢʷa‘x̢sine‘x̢-i qá’*

(me-3.may.save-ATTR man)

‘a person who may/can save me’, ‘someone who may/can save me’, ‘someone to save me’

(76) N-L D827-8:

yagé· ha·-ʒi·-dé ˀa-·n ˀa·waˀa·d-i ˀád,

(3.is.big our-possession-ALL it-COMIT INDEF.plural.went-ATTR thing)

‘There were many things that people came to give us,

cu wé dá·na· qa cu yá ˀád-x̢ qatułiye·x̢-i ˀád.

(also that money and also this thing-PERT we.may.make.3-ATTR thing)

both money and things for us to use (Potential).’

(77) D1 D217-8:

ˀa·ɢá·#ˀáwé hú#qu.a· yanax̢#da·ɢ#ˀuwagúd ƛe,

(then#FOCUS he#however along.ground#inland#3.went just)

‘That’s when [Nātsiłanē]went into the forest,

I-component.

BEST COPY AVAILABLE

c̓a#ʔá-· nɢʷa·na·-wu yé·-de·#gíwé.

(just#there-LOC 3.may.die-ATTR place-ALL#INTERROG.FOCUS)

maybe to wherever he would die (Potential).'

(78) N-L D448:

gu·sú ʔax̣-ʔi·d ʔux̣diši·-yi ʔád?

(where.is me-PUNCT 3.may.reach.hand-ATTR thing)

'I had nowhere to turn to for help' [lit. 'Where is the thing that could help (Potential) me?']

Most often the NP with Potential relative clause is embedded in the frame *ƛé·ł...qu‘stí* '...does not exist', with or without elipsis of the final verb *qu‘stí*. Such sentences translate roughly 'there is no N such that...may/can/could V'.

(79) N-L D730:

ƛéł ʔaš-wu·nɢa·ǯi·-yi qá· qu·stí.

(not 3SAL-3.may.discipline-ATTR man 3.exists)

'There is nobody to discipline (Potential) him.'

(80) N-L F272:

ƛéł ʔu·ɢa·x̣a·-yi ʔád#gíwé.

(not 3.might.eat-ATTR thing#INTERROG.FOCUS)

'He had nothing to eat (Potential), I guess.'

(81) N-L F341:

ƛe ƛéł cu ʔa-ká-x̣ ʔaš-x̣'e·nɢa·wú·s'-i ʔád#dé· qu·stí.

(just not again 3-REC-surface-PERT 3SAL-3.might.ask-ATTR thing#now 3.exists)

'There was nothing else for him to ask (Potential) her for.'

(82) N-L F240-1:

ƛéł ʔa-nax̣ qustí du-ǯi·-Ø yé·#nɢʷa·ti·-yi yé-yáx̣ ha·-tu-wá-· yati·.

(not it-PERL life 3-possession-LOC thus#3.may.be-ATTR place-like our-mind-face-LOC 3.is)

‘There’s no way he could provide (Potential) a good living, it seems to us.’

[more lit. ‘There is no way via which he could have a (good) existence.’]

As seen in (82), the verb *qu‘stí* can be omitted even if it is not the main verb.[29]

Finally, where an NP has the form *ʔa‘dé·...V(Attributive Potential) yé* ‘way/manner such that...may/can/could V’ is embedded in the *ƛé·ł...(qu‘stí)* frame, we obtain the very common construction *ƛé·ł ʔa‘dé·...V(Attributive Potential) yé (qu‘stí)* ‘there is no way/manner such that...may/can/could V’, almost always translatable as ‘...cannot V’ (provided the subject is an agent). A somewhat unusual use is found in (85), where it indicates refusal rather than physical impossibility.

(83) *ƛéł ʔa‘dé· wú’š-dáx̣ ʔunqa'k'u‘ʒ-i yé.*

(not thus RECIP-ABL I.may.snap.3-ATTR place)

‘I can’t break it.’ ‘There’s no way I can break it.’

(84) *ƛéł ʔa‘dé· wú’š-dáx̣ ʔunɢa'k'u‘ʒ-i yé.*

(not thus RECIP-ABL 3.may.snap-ATTR place)

‘It won’t break.’ ‘There’s no way it will break.’

(85) N-L A20-1:

ƛé·k’, de yun#x̣á x̣ʷa·núg,

(no, already to.finish#you.see I.have.sat)

‘No, I’m already sitting (Perfective) here;

ƛéł ʔa·dé ʔa-·x̣ Gunayé·#qʷa·nu·gu yé.

(not thus there-ABL beginning#I.may.move.sitting place)

I’m not about to move.’ [also translatable ‘...there’s no way I’m going to move.’]

---

[29] The form without elipsis would be...*yé·#nɢʷa·ti·yi yé qu·ʒiti·yi yéyáx̣...*; not only is the Attributive form of *qu‘stí* omitted, but so is the following *yé*.

8.2.1.6. The Habitual mode

The Perfective Habitual mode is formed with the order +4 prefix *ASP-* or, if *ASP-* is zero, with *u-*, plus the occasional suffix -ǯ, which is suffixed to the root in Atelic forms, to the ÿ-stem in Telic forms with open roots, and to the ‘-stem (alternating with the ÿ-stem) in Telic forms with closed roots.

Besides the simplex Perfective Habitual, there are also two composite Habitual modes, the Imperfective Habitual and the Future Habitual, formed by adding the Habitual auxiliary ***#nu‘ǯ*** to an Imperfective or Future main verb. Semantically, as we will see, the following proportion roughly describes the relationship of the Habitual modes to the other modes:

(86) Perfective : Imperfective : Future::
Perfective Habitual : Imperfective Habitual : Future Habitual

The Affirmative Perfective Habitual and the composite Habitual modes differ from the corresponding non-Habitual modes chiefly in that they denote habitual situations. The plain Negative Perfective Habitual, however, has a special meaning which will be described below.

8.2.1.6.1. The Affirmative Habitual

Semantically, the Affirmative Habitual denotes habituality. Since the Imperfective may also denote habituality, the question naturally arises how these modes differ in meaning. The answer seems to be that in some cases they do not differ in meaning, but where they do, the difference can best be described by splitting habitual situations into two types: GENERALIZED HABITUAL SITUATIONS and INDIVIDUATED HABITUAL SITUATIONS. This distinction is analogous to the contrast between mass nouns and plural count nouns: generalized habitual situations are viewed as composed of an unindividuated group of instances of a situation, whereas with individuated habitual situations, the instances comprising the habitual situation are separate. Each instance of an individuated habitual situation is itself treated as a situation that entails its own now-window; individuated habitual situations can therefore be temporally sequenced. We will conclude that the Habitual modes refer to individuated habitual situations, whereas the Imperfective typically refers to either non-habitual situations or generalized habitual situations (although in some cases Imperfectives may refer to individuated habitual situations).

Let us begin by illustrating the distinction drawn here between the two types of habituality.

(87) W-W-L C1-15 (Tongass Tlingit):

(87a) *ha· ƛe·ł ƛax̣ x̣ʷasaku qudx̣ we· s'axt' yu' twasa·g-u ʔad.*

(well not very I.know.3 too.much that devil's.club thus we.call.3-ATTR thing)

'I'm not really too well acquainted (Resultative Perfective) with what we call (Imperfective) devil's club.

(87b) *ʔa-daʹka-k'ac'-i#ʔaweʿ ʔa-ʹx̣ duxas'ǯ#s'e,*

(its-enveloping-thorns-POSS#FOCUS it-ABL one.scrapes.3#first)

First the thorns are scraped off (Perfective Habitual);

(87c) *ʔa ʔa-kax̣-i#ʔaweʻ ʔa-ʻx̣ dułxas'ǯ.*

(then its-inner.bark-POSS#FOCUS it-ABL one.scrapes.3.)[30]

then the inner bark is scraped off (Perfective Habitual).

(87d) *ʔa we na·gʷ sagʷ-x̣ dułye·x̣ ya· ʔa-kax̣-i.*

(then that medicine future-PERT one-makes.3 this its-inner.bark-POSS)

The inner bark is used (Imperfective) for medicine.

(87e) *dusta·ÿǯ ye'#kugeʻ hi·n ka-d.*

(one.boils.3 thus#3.being.big water surface-PUNCT)

It is boiled (Perfective Habitual) in a lot of water.

(87f) *x̣'aʻn yax̣ x̣'ananiʻǯ ÿan#wuʼʔiʻ-ÿi.*

(fire like liquid.3.becomes to.finish#3.has.become.cooked-SUB)

The liquid turns red (Perfective Habitual) when it is done cooking (Subordinative Perfective).

(87g) *ʔa-ʻx̣ daʻɢ#dusʔinǯ.*

(there-ABL back#one.sets.3.in.vessel)

They take it off the fire (Perfective Habitual[?]).[31]

(87h) *kadłča·ÿǯ s'isaʻ tu·-nax̣.*

(one.strains.3 cloth inside-PERL)

They strain it (Perfective Habitual) through cloth.

---

[30] The reason for the ł-classifier is the 'gender' or classification of the object; the inner bark is peeled in long strips and hence treated as an extended object.

[31] This may be a mistranscription; the expected Habitual form is *daʻɢ#dusʔiʻnǯ*, which varies from the Iterative Imperfective form *daʻɢ#dusʔinǯ* only by the stigma. On the other hand, the variation in the closed-root Telic Imperfective might mean that this form can be interpreted as an Habitual as well, although the ʻ-stem variant is usual after directional proclitics like *daʻɢ#*.

(87i) *ˀa#ˀawe‘ ˀad-x̣ dusti‘#nuǯ* --

(it#FOCUS thing-PERT one.causes.to.be#HAB.AUX)

Then they use it (Imperfective Habitual) --

(87j) *yu’ ˀax̣-ˀi‘n kadni·g* --

(thus me-COMIT one.is.telling.3)

that’s what they tell me (Imperfective) --

(87k) *ya· s’a‘ɢ-ÿituni·gʷ ÿis ÿak’e·*,

(this bone-pain for 3.is.good)

it is good (Imperfective) for arthritis,

(87l) *qa qa‘-še‘-ÿi ˀałk’e·*,

(and one’s-blood-POSS 3.causes.3.to.be.good)

it purifies (Imperfective) the blood,

(87m) *qa qa‘-te·x̣’ ni·g-u ˀa-x̣ daši‘*.

(and one’s-heart disease-POSS it-PERT 3.helps)

and it helps (Iterative Imperfective) with heart ailments,

(87n) *yu’ kadni·g*.

(thus one.is.telling.3)

so they say (Imperfective).’

Here (87b)-(87i) comprises a habitual narrative sequence. All the verbs in this sequence except that of (87d) are Habitual, and describe a sequence of habitual situations. Since these situations are temporally ordered with respect to one another, they must be interpreted as individuated habitual situations, that is, habitual situations where each instance of the situation has its own now-window. Sentence (87d), on the other hand, is parenthetical and not part of this sequence; it denotes a general truth, and is therefore a generalized habitual situation. The same is true of (87j)-(87n); these also denote generalized habitual situations. Note that although interrelationships between these situations exist, they are not temporal relationships. The semantic difference between individuated and generalized habitual situations is here formally indicated by the use of the Perfective Habitual or Imperfective Habitual for the former, and the Imperfective for the latter.

The rich variety of Imperfective and Habitual forms available for a typical verb is illustrated by (88).

(88a) *O-S-∅-x̣a*·* (∅-act.) 'S eats O'

(88b) *x̣ax̣á* (Primary Imperfective) 'I am eating it; I eat it (as a rule)'

(88c) *ƛé·ɬ x̣ʷax̣á* (Negative Primary Imperfective) 'I am not eating it; I don't eat it (as a rule)'

(88d) *x̣ax̣á·#nu'ʒ* (Primary Imperfective Habitual) 'I eat it (habitually, on occasion)'

(88d) *ƛé·ɬ x̣ʷax̣á·#nu'ʒ* (Negative Primary Imperfective Habitual) 'I don't eat it (habitually); I never eat it'

(88f) *x̣ax̣é·x̣* (Iterative Imperfective) 'I keep eating it (repeatedly); I am eating at it, repeatedly undertaking to eat it; I eat it (habitually)'

(88g) *ƛé·ɬ x̣ʷax̣é·x̣* (Negative Iterative Imperfective) 'I don't keep eating it; I'm not eating at it; I don't eat it (habitually); I never eat it'

(88h) *x̣ax̣é·x̣#nu'ʒ* (Iterative Imperfective Habitual) 'I keep eating it (habitually); I keep eating at it; I eat it (habitually)'[32]

(88i) *ƛé·ɬ x̣ʷax̣é·x̣#nu'ʒ* (Negative Iterative Imperfective Habitual) 'I don't keep eating it; I'm not eating at it; I don't eat it (habitually); I never eat it'

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[32] We should note, however, that the only instances of Iterative Imperfective Habituals in the corpus are from verb bases with no Primary non-Iterative Imperfective. It may be, then, that Iterative Imperfective Habituals are normally avoided when a Primary Imperfective Habitual exists, so that the elicited form (88h) is in fact unnatural.

(88j) *x̣ʷax̣á·ÿʒ̵* (Perfective Habitual) 'I eat it (habitually, on occasion)'

(88k) *ƛé·ł x̣ʷax̣á·ÿʒ̵* (Negative Perfective Habitual) 'I haven't eaten it (yet)'

The Negative Perfective Habitual has quite a different meaning from the Affirmative Perfective Habitual; it translates the English Negative Present Perfect, as seen in (88k). Whereas an affirmative habitual sentence can be expressed with either an Imperfective or an Habitual verb, therefore, a negative habitual sentence can be expressed only with an Imperfective verb. We will defer discussion of the Negative Perfective Habitual to 8.2.1.6.3.

Let us now consider the contrast between Perfective Habitual forms, such as (88i), and Imperfective Habitual forms composed of an Imperfective plus an Habitual auxiliary, such as (88d) and (88h). The formal variables here are imperfectivity, iterativity, and habituality.

Let us first consider (87f) *x̣ax̣é·x̣*, which denotes that the process of eating is repeatedly undertaken. If this occurs in a single sitting, we would naturally consider it an iterative but non-habitual situation ('I'm undertaking to eat it (repeatedly)'). If it is spread out over days or months, we would tend to consider it a habitual situation ('I eat it (habitually)'). If it occurs in several sittings over a period of hours, however, we may not be sure how to classify the situation. The temporal distance between instances of a repeated situation therefore seems insufficient to determine whether a situation is habitual or merely iterative. And in fact, it seems that Tlingit does not make a formal distinction between generalized habitual situations and non-habitual iterative situations; in either case, the instances of the situation are not individuated. These are as a group distinguished from individuated habitual situations.

Let us therefore assign the following meanings to the formal variables: Imperfective modes are IMPF(S); Iterative Imperfectives are ITER(S), that is, either non-habitual iterative situations or generalized habitual situations; and Habituals are HAB(S), that is, individuated habitual situations. If the semantic contrasts neatly mirrored the formal contrasts, we would expect meanings like the following: (88b) *x̣ax̣á* would be IMPF(S), i.e. ‘I am presently performing the act of eating’; (88d) *x̣ax̣á·#nu‘ǯ* would be HAB(IMPF(S)), i.e. ‘I habitually perform the act of eating’; (88f) *x̣ax̣é·x̣* would be ITER(S), i.e. ‘I am presently performing or undertaking multiple acts of eating’; (88h) *x̣ax̣é·x̣#nu‘ǯ* would be HAB(ITER(S)), i.e. ‘I habitually perform or undertake multiple acts of eating’; and (88i) *x̣ax̣á·ÿǯ* would be HAB(S), i.e. ‘I habitually eat (at times that may be temporally ordered)’.

The meanings of (88b), (88d), (88f), and (88h), however, are not semantically differentiated as neatly as indicated by the above representations. Iterative Imperfectives may be interpreted as either ITER(S) or HAB(ITER(S)), as (89b) illustrates.

(89a) WS: *ʔawusti·n-í· wé dú·ʃ̌ ƛe ʔu·ce·x̣ǯ.*

(3.sees.3-SUB that cat just 3.kicks.3)

‘Every time he sees (Subordinative Perfective) the cat, he gives it a kick (Perfective Habitual).’

(89b) WS: *ʔawusti·n-í· wé dú·ʃ̌ ƛe wu·ǯ-ʔid-de ʔacéx̣x̣.*

(3.sees.3-SUB that cat just RECIP-following-ALL 3.kicks.3.ITER)

‘Every time he sees (Subordinative Perfective) the cat, he kicks it (Iterative Imperfective) several times.’

In (89b), the Iterative Imperfective *ʔacéx̣x̣* occurs in place of the expected Iterative Imperfective Habitual *ʔacex̣x̣i#nu·ǯ* (which is, of course, also possible).[33]

Finally, the distinction between generalized and individuated habitual does not exist in negative habituals, which are uniformly expressed with Negative Iterative Imperfective forms, as seen in (90b).

(90) EN:

(90a) *wé ʔax̣-ná·g-u ł#ʔu·x̣ax̣é·x̣-i#ʔáwé ƛe cu x̣ad-ganí·gʷǯ,*

(that my-medicine-POSS not#I.eat.ITER-SUB#FOCUS just again me-gets.sick)

‘When I don’t take (Subordinative Negative Iterative Imperfective) my medicine I get sick (Perfective Habitual) again.

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[33] Furthermore, it is not always clear that Iterative Imperfective Habituals attested are semantically iterative as well as habitual.
(a) N-L D616-7:
ʔá#ʔáwé čʼu#yá yi·dádi-dé du-x̣ʼa-ká-· da·g#tux̣datánǯi#ni·ǯ wé ʔax̣-ʔi·š.
(3REC#FOCUS even#this now-ALL 3-mouth-surface-LOC out#I.think.ITER#HAB.AUX that my-father)
‘So now, to this very day, I always recall (Iterative Imperfective Habitual) my father’s words.’
(b) D-D2 W209-11:
ha dé·x̣ yi·ka·-dé·#ʔáyá s-ʔasé·x̣#nu·ǯ-i·n yá ʔax̣-ʔi·š-hás-ǯ yá ši.
(well two ways-ALL#FOCUS PL-3.names.3.ITER#HAB.AUX-DEC this my-father-PL-ERG this song)
’These songs usually were called (Decessive Iterative Imperfective Habitual) two ways by these fathers of mine.’
(c) W-W-L C42-6 (Tongass Tlingit):
ʔa-tʼaʻɢ-de#ʔaweʻs, naʻs ʔiʻx̣, ƛe·xʼ šał ka-d,
(3REC-side-ALL#FOCUS, Nass.River oil, one spoon surface-LOC)
‘Alongside that, a spoonful of eulachon oil,
šał ƛenʻ yuʻ#gatu·łxʷeng#nuǯ ƛe·xʼ#dahi·n ƛe·xʼ yagy̌iʻ.
(spoon big repeatedly#we.spoon.for.selves.ITER#HAB.AUX one#time one day)
we took (Iterative Imperfective Habitual) a tablespoonful once a day.’
These utterances might be taken to refer to habitual situations each instance of which is non-iterative. That is, they may be interpreted as either HAB(ITER(S)) or (HAB(IMPF(S)).

(90b) *wé ʔax̣-ná·g-u x̣ax̣a·-yí#quʔa#ʔáwé ƛe ƛéɬ ke·#x̣ad-ʔuni·gʷʒ.*

(that my-medicine-POSS I-eat-SUB#however#FOCUS just not up#me-gets.sick.ITER)

But when I take (Subordinative Imperfective) my medicine, I don't get sick (Negative Iterative Imperfective).'

It thus appears that the impressive variety of formal contrasts seen in (88) is not fully exploited semantically, or at the least, that there is some slack in the system. Iterative Imperfectives may be used where we expect Iterative Imperfective Habituals, and Iterative Imperfective Habituals where we would expect plain Perfective Habituals. Disregarding for now these exceptions, for which we must eventually provide an account, we will turn next to characterizing how the system typically works.

To grasp the raison d'être of the Habitual, it is essential to understand the relationships between the modes used in past narrative sequences and those used in habitual narrative sequences. To this end, I made up two passages that are identical except that one is a past narrative sequence and the other is a habitual narrative sequence, and asked WS and EN to translate them. Rather than reproducing these passages in full, I will present them in English, and indicate for each clause the form of the verb used in the translation rendered by each speaker.[34]

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[34] EN was asked to translate each passage twice. In the past narrative sequence, the same forms were used both times, but in the habitual narrative sequence, there are some differences.

(91) Past narrative sequence:	**WS**	**EN**
(91a) Last year we **went** to camp.	Perf.	Perf.
(91b) When we **reached** shore	Consec.	Consec.
(91c) we **pulled** the boat up	Perf.	Perf.
(91d) and **turned** it over.	Perf.	Perf.
(91e) Then we **looked** for firewood	Perf.	Perf.
(91f) and **took** it to the cabin.	Perf.	Perf.
(91g) There we **made** a fire	Perf.	Perf.
(91h) and **cooked**.	Perf.	Perf.
(91i) After we **had eaten**,	Consec.	Consec.
(91j) we **told** stories.	Perf.	Impf.
(91k) We **drank** tea, too.	Perf.	Impf.
(91l) After a while we **got sleepy**,	Prog. Impf.	Prog. Impf.
(91m) so we **went** to bed.	Perf.	Perf.

(92) Habitual narrative sequence:	**WS**	**EN**
(92a) Every year we **go** to camp.	Perf. Hab.	Iter./Prog. Impf.
(92b) When we **reach** shore	Conting.	Sub. Perf.
(92c) we **pull** the boat up	Perf. Hab.	Perf. Hab./Iter. Impf.
(92d) and **turn** it over.	Perf. Hab.	Perf. Hab./Iter. Impf.
(92e) Then we **look** for firewood	Perf. Hab.	Impf./Perf. Hab.
(92f) and **take** it to the cabin.	Perf. Hab.	Perf. Hab./ Iter. Impf.[35]
(92g) There we **make** a fire	Perf. Hab.	Perf. Hab.
(92h) and **cook**.	Perf. Hab.	Impf./Perf. Hab.

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[35] The Iterative Imperfective form here is to be interpreted as a habitual iterative: ‘we bring the wood up (in loads)’.

(92i) After we **have eaten**,	Conting.	Sub. Perf./ Conting.
(92j) we **tell** stories.	Impf. Hab.	Impf. Hab.
(92k) We **drink** tea, too.	Impf. Hab.	Impf. Hab.
(92l) After a while we **get sleepy**,	Prog. Hab.	Prog. Hab.
(92m) so we **go** to bed.	Perf. Hab.	Perf. Hab.

The following correspondences generally hold between past and habitual narrative sequences:

(93)	**Past**	**Habitual**
	Perfective	Perfective Habitual
	Imperfective	Imperfective (Habitual)
	Progressive Imperfective	Progressive Habitual
	Consecutive	Contingent

In WS's translations, these relationships hold almost perfectly, but in EN's translations, there is a tendency to use the Iterative Imperfective instead of the Habitual. Also noteworthy is the tendency, mentioned above, to use non-Imperfective forms to refer to motions and events, but Imperfective forms to refer to processes. EN used Imperfective forms in both sequences, for example, to refer to the protracted processes of story-telling and drinking tea in (91/92j) and (91/92k), as did WS in the habitual narrative sequence.

By analogy with what we have seen of past narrative sequences, we expect Habitual forms to form the backbone of a habitual narrative sequence, advancing the narrative now-window in the same way as the Perfectives do in a past narrative sequence. We also expect Imperfective forms to be interpreted according to the current narrative now-window. Thus we would expect Imperfectives in a habitual narrative sequence to acquire habitual connotation by context, in the same way as they acquire past connotation in the context of a past narrative sequence.

However, the analogy at work in the semantic relationship between the narrative mode (Perfective or Habitual) and the Imperfective is disrupted by the existence of the composite Habitual modes, in particular, the Imperfective Habitual. In past narrative sequences, forms which are semantically imperfective can only be Imperfective; whereas in habitual narrative sequences, they can be either Imperfective or Imperfective Habitual. In fact, the existence of composite Habitual modes (both Imperfective and Future Habitual) makes it possible for ALL main verbs in a habitual narrative sequence to be overtly Habitual, as exemplified by WS's translation of (92).

Thus in a habitual narrative sequence, both Imperfectives and Imperfective Habituals can be interpreted as semantically habitual. It seems likely that this fact has resulted in a blurring of the semantic distinction between these two categories. As mentioned above, we would expect that in a habitual narrative sequence, an Imperfective form would be temporally evaluated with respect to the narrative now-window. What we find, however, is that an Imperfective may, like a Imperfective Habitual, create a new narrative now-window. We thus arrive at the following semantic interpretative principle for Imperfectives:

> (94) Imperfectives may be interpreted as Imperfective Habituals, that is, as creating their own now-windows in habitual sequences.

In the following discussion, therefore, when we refer to the semantic properties of Habituals we will implicitly include in this category also Imperfectives interpreted as Imperfective Habituals.

Let us now look more closely at the evidence for the claim that Habituals denote individuated habitual situations, i.e. habitual situations the instances of which have their own individual now-windows. The most important evidence is the fact that Habituals may be temporally ordered with respect to one another in habitual sequences. Similar is the pronounced preference for Habitual forms in the presence of a temporal adverbial which imposes a condition on the instances of the habitual occurrence.

By way of clarification, we should first note that with regard to habitual situations, temporal adverbials may modify either the situation as a whole or the instances of the situation; furthermore, they may either specify duration or impose a temporal condition.

(95) N-L F90-4:

(95a) *č̓á·gʷ yád wuduʔu·-wú ƛ̓é·x̣ʼ d̄is yá·náx̣#áwé yi·ʔád ká-·#ʔáyá qu-nduʔʷe·ǯ.*

(long.ago child one.has.had-SUB one month more.than#FOCUS bed surface-LOC#FOCUS one-one.keeps)

'Long ago when (a woman) had (Subordinative Perfective) a child she was confined (Perfective Habitual) to bed for over a month.

(95b) *ƛe k'adé·n ɢa·#qu-wuti·-yí#ʔáwé#cá ye·sú qu-ša·dusnu·gǯ.*

(just well all.right#one-has.become-SUB#FOCUS#only.then next one-one. causes.to.get.up)

'Only when she was (Subordinative Perfective) quite recovered was she allowed to get up (Perfective Habitual).'

In (95a), for example, *č'á·gʷ* ‘long ago’ modifies the whole situation, *ƛé·x' dís yá·náx̣* ‘for over a month’ indicates the duration of the instances of the situation, and *yád wuduˀu·wú* ‘when one had had a child’ imposes a condition on the instances of the situation, as does *k'adé·n ɢa·#quwuti·yí#ˀáwé#cá* ‘only when one was quite recovered’ in (95b). It is to the latter type of temporal adverbial that we refer to here.

This temporal adverbial may be existentially quantified, e.g. with *wá'#ÿatiỷi yé·x'(#sá)* or *wá'#nɢani'n(í·)#sá* ‘sometimes’, as in (96) and (97), or universally quantified as in (98).[36]

(96) N-L E412:

wá·#yati·-yi yé·-x' nás'g ha·-ˀux̣í·yʒ wé hí·n yí-de.

(how#3.is-ATTR place-LOC three us-spend.the.night that river inside-ALL)

‘Sometimes we would [go] to the river [and] stay over (Perfective Habitual) for three nights.’

(97) N-L D1112-4:

wá·#yati·-yi yé·-x' ˀa-da·-∅ yu·#tux̣atangi#ni·ʒ.

(how#3.is-ATTR place-LOC its-about-LOC repeatedly#I.am.thinking #HAB.AUX)

‘Sometimes I think (Iterative Imperfective Habitual) about it.’

(98) N-L D871-3:

every time *čˀa#gu·#sá ˀad-gax̣tu·x̣á·*

(*every time* ipse#where#WHQ thing-we.will.eat)

‘Every time we were about to eat (Future),

ˀa·ɢá·#ˀáwé ˀax̣-ka·-dé yanaqé·ʒ,

---

[36] In both cases, note the familiar use of a noun of place to refer to time: *wá'#ÿatiỷi yé·x'(#sá)* ‘sometimes’ literally translates ‘at some places’, and *č'a#gu'#sá* is literally ‘wherever’.

(then#FOCUS my-surface-ALL 3.says)

he would criticize (Perfective Habitual) me;

kaduǯixʷ#ni·ǯ wé ʔax̣-waG-hí·ni.

(3.is.rolling#HAB.AUX that my-eye.water)

my tears would roll (Imperfective Habitual).

Perhaps the most characteristic type of temporal adverbial used to modify the Habitual is the Contingent clause. In almost every instance where there is a Contingent clause in the text corpus, this clause modifies a main clause in the Habitual.

(99) N-L C447:

yú diki· ke·#x̣tu·ʔádín#áwé s-du-yi·-Gá· ʔá-· x̣tu·qi·ǯ.

(yonder above up#whenever.we.go#FOCUS PL-3-anticipating-VICIN there-LOC we.sit)

'When we had gotten way up high (Contingent) we would sit there (Perfective Habitual) waiting fo

them.'

(100) N-L B313-4:

ʔadáx̣#áwé yu·#ʔad-ku·ti·g#Ganúgún#áwé

(after.that#FOCUS repeatedly#thing-is.conducted#CONTINGENT.AUX #FOCUS)

'Afterwards, when there is a potlatch (Imperfective Contingent),

ƛe yé·#x̣ad-yandusqé·ǯ,...

(just thus#me-one.says.to)

they say to me (Perfective Habitual),...'

As these examples indicate, the Contingent clause specifies a time relative to which the situation denoted by the Habitual clause takes place.

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I have found, however, one example where the Imperfective is paired with the Contingent.[37]

(101) D-D2 Z172-3:

wá· ga·w#sáwé łingíd wu·ǯ#ɢa·x̣daʔí·xʷin ʔa-da·-d yu·#x̣ʼatáng yú·-x̣#xi·x.

(how time#WHQ.FOCUS Tlingit RECIP#whenever.3.invites its-about-PUNCT speech yonder-PERT#3.falls)

'how at a time like this when Tlingits hosted each other words would be said about the food' [more literally probably ‘at such a time as Tlingits invite (Contingent) one another to eat, words emerge (Iterative Imperfective) concerning it.’][38]

WS also produced sentences of this type in translation.

(102) WS: *x̣ad-gaɢaní·gún#áwé wé ná·gʷ ƛé·xʼ-dahí·n ƛé·xʼ yagyi· yu·#gx̣a·nútʼgʷ/ ʔád-x̣#x̣ałayé·x̣.*

(me-whenever.is.sick#FOCUS that medicine one-time one day repeatedly#I.swallow. small.round.3/thing.ITER-PERT#I.make.3)

‘Whenever I'm sick (Contingent) I take that medicine once a day.’ [lit. either ‘...I swallow (Iterative Imperfective)...’ or ‘...I use (Imperfective)...’]

In general, then, the existence of a temporal condition on the instances of a habitual situation favors the use of the Habitual mode. This temporal condition may be implicit. When asked to characterize the difference between (103a) and (103b), for example, WS states that (103a) is usually taken to mean that the speaker is a student and thus goes to school regularly, whereas (103b) could be taken to imply that school is just one among several possible places the speaker could decide to go.

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[37] When asked to repeat this sentence, EN paraphrased it replacing the Contingent form with a Subordinative Perfective form, thus avoiding the problem.

[38] The original has *yá* after *wá·*; this appears to be a false start.

(103a) *sgú·n-de‘ yu‘#x̣a‘gúdgʷ* (school-ALL I.go.ITER) ‘I go to school (Iterative Imperfective)’

(103b) *sgú·n-de‘ nx̣agúdǯ* (school-ALL I.go) ‘I (often) go to school (Perfective Habitual)’

Another very interesting example involving the contrast between these two modes is (105). This was given by EN as an amplification of (104) in answer to my asking her how to say ‘I’ve been getting sick off and on today.’[39]

(104) *yá yagyi· ka-nax̣#áwé ke·#x̣ad-ní·gʷǯ.*

(this day surface-PERL#FOCUS up#me-gets.sick)

‘I’ve been [repeatedly] getting sick (Iterative Imperfective) all day.’

(105a) *č’a#wá·#yati·-yi yé·-x’#áyá ke·#x̣ad-ní·gʷǯ,*

(ipse#how#3.is.ATTRIB place-LOC#FOCUS up#me-gets.sick)

‘Sometimes I get sick (Iterative Imperfective),

(105b) *ʔadax̣#áwé cu č’a#wá·#yati·-yi yé·-x’ cu x̣ad-ganí·gʷǯ,*

(after.that#FOCUS again ipse#how#3.is.ATTRIB place-LOC again me-gets.sick)

and then I get sick (Perfective Habitual) again,

(105c) *ʔadax̣#áwé cu č’a#wá·#yati·-yi yé·-x’ cu x̣ad-ganí·gʷǯ.*

(after.that#FOCUS again ipse#how#3.is.ATTRIB place-LOC again me-gets.sick)

and then I get sick (Perfective Habitual) again.

The fact that the repeated instances of getting sick are confined to a single day makes it hard to view this as a habitual situation. Since the Iterative Imperfective is used for non-habitual iterative situations, it is the appropriate choice in (104) and

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[39] I was struck by the sequence of tenses in this utterance and therefore asked EN to repeat it several times; she consistently maintained the same order of tenses.

(105a) (even though it clashes with the 'sometimes' in (105a)). In (105b), however, temporal sequencing is imposed on the instances of getting sick. This necessitates treating each instance of getting sick as a separate situation with its own now-window; this is indicated by the use of the Habitual.[40]

What I would like to claim, then, is that a principle like (106), together with a meaning for the Habitual like that proposed in (107), is responsible for the switch to the Habitual in (105b).

> (106) The imposition of temporal sequencing on instances of an iterated phenomenon makes it necessary to view these as situations entailing their own now-windows.

(a) N_i
--------(---------------)--------
$\mathrm{HAB}(S(x)) =$
$\Sigma(S_j(x))$

(b) N_{i1} N_{i2} N_{i3} N_i
--------{(------)-----------(------)----------(------)----------(----)}--------
$S_1(x)$ $S_2(x)$ $S_3(x)$...

Figure 54. The individuated-habitual

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[40] (105c) is a superfluous repetition of (105b); I include it simply because I want to reproduce the utterance as given.

(22) $HAB^{N_i}(S(x))$: $S(x)$ is HAB with respect to N_i if $S(x)$ is an aggregate of instances-of-a-situation $S_j(x)$, each such that at an interval N_{ij}, $S_j(x)$ is true at some time in N_{ij}, and if $S(x)$ is true at some time in N_i.

We can now more precisely define temporal relationships between two habitual situations in a sequence as in (108). This is illustrated by Figure 55.

(108) If both $S(y)$ and $S(z)$ are habitual situations, i.e. aggregates of instances-of-a-situation $S_i(y)$ and $S_i(z)$, then $S(y)$ is in a certain temporal relationship with $S(z)$ if for each pair of $S_i(y)$ and $S_i(z)$, $S_i(y)$ is in this same temporal relationship with $S_i(z)$.

N_{i1y} Ni_{1z} N_{i2y} Ni_{2z} N_i

--------{(------)-(------)-----------(------)-(------)------------(------)}--------

$S_1(y)$ $S_1(z)$ $S_2(y)$ $S_2(z)$...

Figure 55. The individuated-habitual sequence

We can now see the motivation behind principle (106). When we identify a relationship of temporal sequence between two habitual situations, say for example that $S(y)$ precedes $S(z)$, we are logically asserting that this relationship holds for each pair of instances of these habitual situations, i.e. that each $S_i(y)$ precedes each $S_i(z)$. But in order for a temporal relationship among them to be specifiable, these instances must themselves be situations, each entailing its own now-window. This is what I claim is true of the Tlingit Habitual.

With a situation which is semantically iterative or generalized-habitual, on the other hand, the instances of the situation lack now-windows, as shown in Figure 56.

N_i

--------{(------)-----------(------)----------(------)----------(----)}--------

$S_1(x)$ $S_2(x)$ $S_3(x)$...

Figure 56. The generalized-habitual

In this case, the only possible meaning for the statement that S(y) precedes S(z) would be that all the component instances of S(y) precede all the component instances of S(z); this is what I claim is generally true of the generalized-habitual use of the Imperfective.

I should stress here that the above definition of individuated habituality is such that it may be difficult to ascertain whether a situation is individuated-habitual, as opposed to generalized-habitual or iterative, except in habitual sequences. We saw above, for example, that an Iterative Imperfective form like *x̣ax̣é·x̣* 'I keep eating it (repeatedly); I am eating at it; I eat it (habitually)' may be interpreted as iterative or generalized-habitual; the temporal distance between instances of a repeated situation is insufficient to determine whether a situation is habitual or merely iterative. The present definition of individuated-habituality entails that, while the temporal distance between instances of a repeated situations may allow the hearer to deduce whether this situation is extended over a span of time, it does not serve as a test of habituality. To be sure we are dealing with individuated-habitual situations, therefore, we will look for instances where repeated situations are presented in a narrative sequence.

Let us now consider some passages where Imperfectives with habitual interpretation occur in habitual narrative sequences.

(109) N-L D1242-8:

(109a) *ʔa·-dáx̣ ʔa· quʔu·#ʔáyá yá·-xʼ ʔi·ɢ#ʔuʔa·dǯ.*

(there-ABL one people#FOCUS here-LOC to-water#3.PL.come)

‘People from there come (Perfective Habitual) down here.

(109b) *wá·#yati·-yi ʔa· ga·w#sáwé wé ta·gíš-dáx̣ ha·d#ʔu·ʔa·dǯ.*

(how#3.is-ATTR one time#WHQ.FOCUS that Tagish-ABL hither#3.PL. come)

Sometimes people from Tagish come (Perfective Habitual) here.

(109c) *ʔa yé·#ʔad-ti·-yí#ʔáwé š-x̣ʼa-duštʼixʼx̣,*

(well thus#thing-3.is-SUB#FOCUS REFL-mouth-one.steadies.ITER)

When this happens, one controls (Iterative Imperfective) one’s speech. [lit. ‘Things being thus, one steadies one’s mouth.’]

(109d) *ƛéł čʼa#ku·gé·yi yú·-x̣#x̣ʼaduta·n.*

(not ipse#any.old.way out-PERT#one.speaks)

One does not just blurt out (Iterative Imperfective) anything.

(109e) *ʔa-yayi·-x̣ ya·#tudutánǯ ʔa·dé qu-yagʷɢaqa· yé,*

(its-anticipation-PERT aside#one.thinks.ITER thus one-will.say way)

One ponders (Iterative Habitual) what he’s going to say (Future) ahead of time

(109f) *qa·-yá-d ša·šx̣í·n-ɢa·.*

(one’s-face-PUNCT don’t.let.3.fall.endwise-VICIN)

lest it smack (Admonitive with -ɢa·) someone in the face.

We should first point out that all the Habitual forms in (109) are motion verbs; this is true of the first verb in (109e) as well as those in (109a) and (109b).[41] As we pointed out in 8.2.1, it is typical of narrative sequences that motion and event verbs tend to be in the narrative mode (i.e. Perfective in the case of past narrative sequences, and Habitual in the case of habitual narrative sequences).

Note, however, that the verb in (109d) is also a motion verb.[42] Being negative, however, in the Perfective Habitual it would translate as an English Negative Present Perfect ('one hasn't blurted...'), so the Imperfective must be used instead. This leaves the Imperfective verb in (109c). This verb is apparently to be interpreted semantically as habitual-iterative (i.e. 'one habitually performs the act of steadying one's mouth (by repeated adjustments)'). We thus conclude that this Imperfective is interpreted as if it were an Iterative Imperfective Habitual (i.e. as if it were *š-x̣'adušt'ix'x̣i#ni·ǯ*), according to the interpretative principle proposed in (94).

The same is true of the Imperfectives in (110a) and (110d):

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[41] The first verb in (109e) has the theme *tu-S-d-tan** (motion act.) 'S thinks' (or more literally, 'S's mind moves') plus the aspectual derivational string *PO-x̣ ÿa-u·-* (∅) 'moving obliquely, circuitously along PO' (note that *ÿa‘#* here is an allomorph of *ÿa·u·-*), where the PO is *NO-ÿaÿi‘* 'anticipation of NO, place of waiting for NO'; the image is of a person letting his thoughts 'detour' through a place of suspension of judgment before 'arriving at a conclusion.'

[42] The theme is *x̣'e-S-d-tan** (motion act.) 'S speaks' (more literally, 'S's speech moves'), with *yú·d#* (∅) 'moving forth, out, away'.

(110) N-L A24-7:

(110a) *ʔa-šuká-d#quʔa č̓a#wu·ǯ-has-x̣ʼadaxí·dd#x̣á,*

(its-before-PUNCT#however ipse#RECIP-PL-goad.verbally.ITER#you.see)

'First they would provoke (Iterative Imperfective) each other,

(110b) *č̓u#ƛe ká-d has-se·xʼa·ɢʷǯ ƛe,*

(even#just surface-PUNCT PL-memory.shifts just)[43]

then they would forget (Perfective Habitual) about it,

(110c) *ƛe cu yá·-xʼ#áwé č̓u#ƛe ʔa-da·-∅ ke·#has-x̣ʼe·łʔa·dǯ,*

(just again here-LOC#FOCUS even#just its-about-LOC up#PL-plural. speak)

and then they would start up (Perfective Habitual) on it again;

(110d) *wu·ǯ-has-x̣ʼadaxí·dd.*

(RECIP-PL-goad.verbally.ITER)

they would provoke (Iterative Imperfective) each other.

Here again, the Habitual verbs in this passage are both motion verbs. Furthermore, the Iterative Imperfective verb of (110a) and (110d) can be interpreted as habitual-iterative.

However, we do occasionally find instances where Iterative Imperfectives clearly refer to habitual non-iterative situations, as seen in (112), a section of the habitual narrative sequence elicited from EN to compare with the corresponding past narrative sequence (111)--the complete passages are given in English in (91) and (92).

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[43] This is an example of a Motion theme that occurs only with one aspectual derivational string. The theme is *O-se-∅-xʼaɢʷ** (Motion) 'O's memory shifts (?)' and the derivational string is *PO-d* (∅) 'arriving at PO', where PO is *NO-ká* 'NO's surface'. The theme itself is virtually impossible to translate because it occurs only in this lexicalized construction.

(111a) *ƛiya·tadgé#ʔáwé ʔa·-dé wtuwaqu·x̣ wé hí·n yíg.*

(day.before.yesterday#FOCUS there-ALL we.went.by.boat that river inside)

'Day before yesterday we went (Perfective) to the river.

(111b) *yan#wutuqu·x̣-ú#ʔáwé da·g#wutuwayíš wé ya·gʷ*

(ashore#we.went.by.boat-SUB#FOCUS upland#we.pulled.3 that boat)

When we went ashore (Subordinative Perfective), we pulled (Perfective) up the boat

(111c) *ƛe ʔá-· yax̣#wutuwatán.*

(just there-LOC over#we.handled.(wooden).3)

and turned (Perfective) it over.

(112a) *c'a#ƛágʷ tá·gʷ#ʔáwé ʔa·-dé ntu·qúx̣ǯ wé hí·n yíg.*

(ipse#always winter#FOCUS there-ALL we.go.by.boat that river inside)

'Every year we go (Perfective Habitual) to the river (by boat).

(112b) *yan#wutuqu·x̣-ú#ʔáwé da·g#tu·yíšǯ wé ya·gʷ*

(ashore#we.went.by.boat-SUB#FOCUS upland#we.pull.3.ITER that boat)

When we go ashore (Subordinative Perfective), we pull (Iterative Imperfective) up the boat

(112c) *ƛe ʔá-· yax̣#tu·tánx̣.*

(just there-LOC over#we.handle.(wooden).3.ITER)

and turn (Iterative Imperfective) it over.

The Iterative Imperfective forms in (112b) and (112c) do not appear to denote habitual-iterative situations, since the act of pulling up the boat and turning it over is performed only once each trip.[44] It may be, then, that we need a further interpretative principle, in addition to (94), to the effect that Iterative Imperfectives may be interpreted as non-iterative habituals. More examples of this type extracted from texts would be needed to establish the need for such an interpretative principle.[45]

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[44] When I later reelicited the same passage, however, EN used Habituals in place of the Iterative Imperfectives in (112). I therefore suspect that this example might not be typical, especially since it was elicited.

To sum up, then, Perfective Habitual forms denote non-imperfective habitual situations; Imperfective Habitual forms denote imperfective habitual situations; and Imperfective forms denote imperfective situations that may or may not be habitual. It may furthermore be the case that Iterative Imperfectives can denote non-iterative habitual situations. A careful study of a larger text corpus will be needed to refine these conclusions further.

8.2.1.6.2. The composite Habitual modes

As mentioned in 8.2.1.6, the Habitual auxiliary combines with Imperfective and Future verbs to create Imperfective Habitual and Future Habitual forms. Because of the semantic overlap between the Imperfective Habitual and the Imperfective, the former mode was discussed and exemplified in 8.2.1.6.1. The Future Habitual, in contrast, is very rare. An unelicited example is (113).

(113) EN: *wé yi·ʔád č̓u#ƛe dé· ʔa-·x̣ da·g#ʔi-gʷɢasgid#ni·ǯ yé#yáx̣#áwé ʔax̣-tu-wa-· ʔi-nati·ǯ.*

(that bed even#just now it-ABLout#you-will.fall#HAB.AUXway#like#FOCUS my-mind-face-LOC you-are)

'You always seem to me (Perfective Habitual) as if you are going to fall (Future Habitual) right off the bed (because you sleep so close to the edge).'

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[45] The need for such an interpretative principle would be further substantiated if it could be established that the examples in note 8 are semantically habitual but non-iterative.

An elicited example of a Future Habitual as a main verb is (114). Here the main verb is understood as habitual; the sentence might be paraphrased as follows: 'In instances where I feel like like doing so, I will (always) do so to it.'

(114) WS: *č̓a#ʔa-yáx̣ š-tu-x̣danu·g-ú yé·#gʷqasani·#nu·ʒ.*

(ipse#it-like REFL-mind-I.feel-SUB thus#I.will.do.to.3#HAB.AUX)

'If I feel like it (Subordinative Imperfective), I will do that to it (Future Habitual).'

8.2.1.6.3. The Negative Perfective Habitual

As mentioned above, the Negative Perfective Habitual consistently translates as the English Negative Present Perfect, as in (115).

(115) *ƛ̓é·ł x̣ʷax̣á·ÿʒ* (Negative Perfective Habitual) 'I haven't eaten it (yet).'

The Subordinative form of the Negative Perfective Habitual may translate 'without having V-ed' as in (119), but is most often used to translate 'before V-ing', especially with the proclitic *č'u'#* 'even' or the adverb *ye'sú·* 'still, for the present' before the negative particle *ł#*, as in (116)-(118).

(116) *č̓u'#ł x̣ʷax̣á·ÿʒi'* (Subordinative Negative Perfective Habitual) 'before I eat/ate it'

(117) N-L C256-7:

č̓a#ye·sú#ł has-du-x̣án-d qutu·ti·nʒ-i#ʔáwé wé ʔax̣-ƛ̓á·kʷ,

(ipse#still#not PL-3-proximity-PUNCT we.have.journeyed-SUB#FOCUS that my sister)

Before we went to visit (Subordinative Negative Perfective Habitual) my sister's family,

GúGł'#gʷšé·wé ʔa·waʔún wé ʔax̣-ʔi·š.

(swan#I.guess.FOCUS 3.shot.3 that my-father)

my father shot (Perfective) a swan.

(118) D-D1 D63:

ł#ʔaš-ʔi·d x̣'e·ta·nǯ-i#ʔáwé yé·#ʔaš-yawsiqa·, 'gu·-dé·#sáwé?'

(not 3SAL-PUNCT 3-has.spoken-SUB#FOCUS thus#3SAL-3.said.to, where-ALL#WHQ.FOCUS)

'Before it could speak [Nātsiłané]asked it, 'Where to?''[46]

(119) N-L E801-2:

du-yú#ʔáhé yaní·gʷ, č̓u#ƛe ƛéł cu ƛé·x' ʔunate·ǯ-i#ʔáwé.

(3-stomach#FOCUS 3.hurts, even#just not again one 3.has.slept. SUB#FOCUS)

'She has a stomach-ache, and hasn't gotten to sleep even once.'

Since the Negative Perfective Habitual is semantically equivalent to the English Negative Present Perfect, let us first consider briefly the semantics of the latter. I wish to consider here specifically the implications of McCawley's analysis of the English Perfect (McCawley 1971 and 1981b). McCawley argues that the semantics of the Present Perfect follow from the fact that this construction is underlyingly a past embedded in a present. He goes on to distinguish four uses of the Present Perfect, and to propose logical structures for two of these, the 'universal' and the 'existential' uses, given here as (120) and (121).[47]

> (120) Universal Present Perfect: For all times t within an interval preceding and including the present time, propositional function F is true at t.

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[46] I do not understand the anaphora in this sentence; this is the only example I have where the salient anaphor is used to refer to two different entities in the same sentence.

[47] McCawley does not actually spell out these logical structures in 1971, but does provide an example of the existential use in 1981b:82, ex. (2).

(121) Existential Present Perfect: For some time t within an interval preceding and including the present time, propositional function F is true at t.

McCawley goes on to propose that these logical structures provide the source of the two tenses composing the Present Perfect: 'the range provides the present tense, since it must be an interval containing the present, and the propositional function being asserted provides the past tense, since it is being asserted of events or times that are in the past' (1971:264).

Now let us compare McCawley's analysis of the Present Perfect with that proposed above for the (Affirmative) Perfective Habitual, shown in Figure 54. Here also we see a past situation embedded in a present situation: the present situation is $S(x) = \Sigma(S_j(x))$, the sum of instances of the habitual situation. The past situation may be inferred by the implicature:

(122) A situation can be considered habitual only if more than one instance of this situation has already transpired.

Therefore $S_1(x)$ must be a past situation, and this past situation, being an instance of $S(x)$, is embedded in it. We may thus restate the meaning of the Tlingit (Affirmative) Perfective Habitual in a manner parallel to McCawley's statement of the meaning of the Present Perfect:

(123) Individuated habitual: For some number of intervals (N_j) within an interval preceding and including the now-window (N_i), situation $S_j(x)$ is true.

Note, however, that there is more than this to the meaning of the habitual. The habitual does not merely mean that the situation has been repeated in the past, but states that the situation is presently a habit, and as such, is likely to be repeated in the future. The restatement in (123) must therefore be taken as implicit in, rather than equivalent to, the meaning of the individuated habitual.

Turning to the negative Present Perfect, we should first note that the meaning of the negated universal Present Perfect is identical with that of the negated existential Present Perfect. McCawley pointed out with regard to the existential use that the scope of the negation is the whole logical structure: 'I haven't read 'War and Peace" means that it is not the case that at some time within a range preceding and including the present, 'I read W&P' is true (1981b:82). And if 'I read W&P' is not true at any time within the range, then 'I don't read W&P' is true at all times within the range. But this is exactly the meaning of the negated universal Present Perfect: 'I haven't worked here for five years' means that at all times within the range of five years preceding and including the present, 'I don't work here' is true.

Quantification of the event complicates the issue, but does not, as far as I can see, invalidate the above generalization. For example, while it is true that 'I have not read W&P five times' does not mean that for some time in the range, 'I don't read W&P five times' is true; neither does 'I have read W&P five times' mean that for some time in the range, 'I read W&P five times' is true. It means, rather, that at five times--or more properly, during five intervals--within the range, 'I read

W&P' is true. Therefore 'I have not read W&P five times' could be truly said by someone who has read W&P only three times.

Applying this analysis to the structure of the individuated habitual situation shown in Figure 54, we see that it should have the meaning given in (124):

> (124) Negative individuated habitual: It is not the case that, for some number of intervals N_{ij} within an interval preceding and including the now-window N_i, situation $S_j(x)$ is true.

This would be satisfied if (a) situation $S_j(x)$ is true for no intervals N_{ij} within the range, or if (b) situation $S_j(x)$ is not true for all intervals N_{ij} within the range. And this is exactly the meaning we arrived at for the English Negative Present Perfect.

We therefore conclude that the meaning of the Negative Perfective Habitual can be derived by negating the restatement of the Affirmative Perfective Habitual given in (123), which assumes the validity of the universal implicature about habituality given in (124). As we have seen, however, (123) cannot be taken as a complete statement of the meaning of the habitual. Thus, while we can show how the unexpected meaning of the Tlingit Negative Perfective Habitual is derivable by subtly modifying the meaning of the Affirmative Perfective Habitual, we cannot maintain that the semantic relationship between these two is logically transparent.

I will for the present simply suggest an ad hoc NOT-YET operator for this category. This is obviously a combination of the negative operator plus some tensed operator; it is not clear to me just what this other operator is. It should be noted, first, that some languages have a NOT-YET category that is not paired with any affirmative category.[48] In European languages with a Perfect category, such as English, this NOT-YET category is quite naturally realized as a Negative Perfect. The collocation of this category with the Habitual seen in Tlingit is much more unusual, but should serve to caution us not to assume without question that the pairing seen in English directly reflects the underlying semantic representation.

8.2.2. Deontic modes

The Deontic modes, as well as the Prohibitive-Optative epimode, predicate a desire for a future situation to hold or not to hold. For the sake of discussion, I will introduce without formal definition an operator $\mathrm{REQUEST}^{P}(S(x))$ interpretable roughly as 'P desires/requests S(x)'. Given this operator, I will tentatively propose the following meanings for the Deontic modes and the Prohibitive-Optative:

(125) Imperative/Hortative: $\mathrm{REQUEST}^{P}(\mathrm{FUT}^{N}(S(x)))$

(126) Prohibitive and Admonitive: $\mathrm{REQUEST}^{P}(\mathrm{NEG}(\mathrm{FUT}^{N}(S(x))))$

(127) Optative: $\mathrm{REQUEST}^{P}(\mathrm{POT}^{R}(\mathrm{FUT}^{N}(S(x))))$

The Imperative and Independent Hortative are in complementary distribution, the Imperative occurring only with second person subjects and the Independent Hortative with first and third person subjects. The Prohibitive functions as a negative of the Imperative/Hortative. The Optative denotes a wish or hope; this may, as it seems to me, be semantically represented as a desire that the situation might obtain in some possible world. The Independent Admonitive is semantically similar to the Prohibitive, except that it has the force of warning the hearer about the possible undesirable effects of a contemplated situation rather than simply to prohibit the situation. I will propose here that the semantic representation of the Independent Admonitive is equivalent to that of the Prohibitive with the addition of a semantic component denoting 'warning', which I will not attempt to characterize explicitly here. The Dependent Admonitive is the negative counterpart of the Dependent Hortative.

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[48] One example is Central Alaskan Yup'ik, which uses the suffix *-ksaite-* for this category; another is Luganda, for which see Comrie 1985:54.

8.2.2.1. The Imperative mode

The Imperative mode is formed with the order +4 aspect prefix plus the '-stem for (a) most open roots and (b) closed-root Atelic verbs and Telic verbs with certain directional proclitics, and the ÿ-stem for certain open-root Telic verbs and other closed-root Telic verbs.[49] The Imperative occurs only in the Assertive epimode and only with second person subject. The second person singular subject pronominal has a zero allomorph restricted to Imperative forms with -D classifiers, as seen in (129b). With objective verbs, the second person object pronominals are used, as seen in (130b).

(128a) Theme *O-ka-S-∅-nig** (na: ·-Process.) 'S tells about O'

(128b) *kanani'g* (Imperative) 'Tell about it!'

(129a) Theme *ǯ-ka-S-ł-nig** (na: '-Process., invariant stem) 'S tells a/the story'

(129b) *ǯ-kani·łni'g* (Imperative) 'Tell a story!'

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[49] The '-stem of open roots is shortened to *CV́* in the Imperative.

(130a) Theme *MANNER O-∅-ti*‘* (na: ỹ-Stat.) ‘O is (so)’

(130b) *yú· ʔi-naťi* (Imperative) ‘Be like that!’

The Imperative is used to form simple second-person commands. The Imperative utterance may be modified by certain enclitics and particles, as seen in (131).

(131) Theme *O-S-ł-yex̣** (0: ·-Process.) ‘S makes O’

(131a) *łayéx̣* ‘Make it!’

(131b) *łayéx̣#xʷán* ‘Be sure to make it!’

(131c) *łayéx̣#dé·* ‘Make it now!’

(131d) *łayéx̣#s’é* ‘Make it first!’

(131e) **łayéx̣#gi?*

(131f) *k’e łayéx̣* ‘Why don’t you make it.’; ‘You’d better make it.’ [suggestion or softened command]

(131g) *dá’ łayéx̣* ‘Please make it!’ [pleading]

Unlike the Hortative, the Imperative cannot be used to form yes/no questions, as seen by (131e).

8.2.2.2. The Hortative mode

The Hortative is formed with the order +4 prefixes *ASP-ɢa-* plus the same stem variants as the Potential, and optionally the suffix *-i‘*. The Independent Hortative is the first- and third-person-subject counterpart to the Imperative. Like the Imperative, occurs only in the Assertive, and it may be modified with the same enclitics and particles. Yes/no-questions may also be formed from the Hortative.

(132a) *ʔax̣łaye‘x̣(i·)* ‘Let him/her make it!’

(132b) *ʔax̣łaye‘x̣(i·)#xʷán* ‘Be sure to let him/her make it!’

(132c) *ˀax̣łayeˀx̣(i·)#dé·* 'Let him/her make it now!'

(132d) *ˀax̣łayeˀx̣(i·)#s'é* 'Let him/her it first!'

(132e) *ˀax̣łayeˀx̣(i·)#gí* 'Should he/she make it?'

(132f) *k'e ˀax̣łayeˀx̣(i·)* 'Why doesn't he/she make it.' [suggestion or softened command]

(132g) *dá' ˀax̣łayeˀx̣(i·)* 'Please let him/her make it.' [pleading]

(133) D1 C457

č'a#yé·#dé· yan#kux̣daya·yí.

(ipse#thus#now to.finish#let.3.come.to.pass)

'Let's just let it be.' [more lit. 'Let it so come to pass now.']

The Independent Hortative may translate 'let...V', as in the above examples, or as 'shall/should V'.[50]

(134) N-L F164-6:

'da·d-x̣#sgí#s'é x̣ad-nax̣sati·?'

(what-being#WHQ.ITERROG#first me-let.be(come))

"What, oh what should I be(come)?'

ˀu·łx̣é·s'#áwé,

(3.prays#FOCUS)

she prayed,

'da·d-x̣#sgíwé#s'é x̣ad-nax̣sati·yí?'

(what-being#WHQ.ITERROG.FOCUS#first me-let.be(come))

"What, oh what should I be(come)?'

(135) D-D1 K174:

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[50] In questions, 'let...V' is not possible, so 'shall/should V' is the appropriate translation.

da·d yís#sáyú č'a#yá·-x' yé·#ˀi-nɢati·.

(what for#WHQ.FOCUS ipse#here-LOC thus#you-let.be)

'Why should you stay behind?' [lit. '...stay here?']

(136) EN: *ha gu·sú č'a#has-ˀakunax̣daka·.*

(well where.is ipse#PL-let.3.motion)

'They should have motioned.'

Example (136) illustrates a special use of the Hortative in a rhetorical question formed with *gu'sú·* 'where is...?'.

The Dependent Hortative differs from the Independent Hortative in that it may occur with all subjects and may be Negative as well as Affirmative. Dependent Hortatives most frequently occurs with the Punctual postposition *-d* (or in Interior Tlingit, *ÿís*), which form purposive clauses translating '(in order) to V' or 'so...can/could V'.

(137) D-D1 C432:

wá·#sáyú ƛax̣ yé· š-yá-· wdiwúƛ ɢadušá·-d.

(how#WHQ.FOCUS very thus REFL-face-LOC 3.is troubled let.one.marry. 3-PUNCT)

'Why was she so in a hurry to be married (Hortative)?'

(138) D-D2 BB175:

ˀi-qašá·-d#áwé yán-de· ˀi-x̣ʷa·x̣u·x̣.

(you-let.me.marry-PUNCT shore-ALL you-I.have.asked.to.come)

'I'm calling you to the beach so I can marry you (Hortative).' [more lit. 'I have asked you to come ashore...']

(139) N-L C127-9:

ƛe wé yán ha·w-ú ká-x'#áwé yan#ˀa·watí·

(just that hemlock bough-POSS surface-LOC#FOCUS to.rest#3.put.3)

'She set [the braided intestine] on the hemlock boughs

ˀa-tú·-dáx̣ hí·n Ga·*Gada·yí yís*,

(its-inside-ABL water let.3.flow.down for)

to let the liquid drain (Hortative) out, [more lit. 'so the liquid could drain out']

wé ˀa-·n ˀuwaˀi-yi hí·n ˀa-tú·-dx̣ Ga·*Gada·-d*.

(that it-COMIT 3.got.cooked-ATTR water its-inside-ABL let.3.flow.down-PUNCT)

so the liquid it was cooked in could drain (Hortative) out.'

I have found one example with *PO sú·x̣* 'in anticipation of PO':[51]

(140) EN: *c'ì·k'a· ˀaǯ-kanayiłyád qúx̣-de qunax̣daha·yí sú·x̣*.

(pinching.game you.(pl.).play back-ALL let.time/season.come in.anticipation.of)

'[You kids] play the pinching game so that the days will grow longer again!'

Purposive clauses also function as complements of verbs of requesting or intending which take manner adjuncts:

MANNER O-tu-∅-ti•'(na: ÿ-Stat.) 'O wants (to do so, to go)';

MANNER O-se-S-∅-ha•·(ɢa: ÿ-Stat., suppletive root *-he* for Stative Impf.)

'S wants O (to do so, to go)';

MANNER ÿa-S-∅-qa•·(na: '-Process.) 'S says (so)';

MANNER O-ÿa-S-s-qa•· (na: '-Process.) 'S says (so) to O'.

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[51] Note also the following construction with *kaya·*.
D-D2 I9-11:
ˀáǯ#áyá č'a#ˀax̣-sé Gay*ˀa·x̣í·-d#áyá*
(therefore#FOCUS ipse#my-voice let.you(pl.).hear-to#FOCUS)
'That is why, so you can at least hear (Hortative with *-d*) my voice,
yé·#wduʒine· ˀax̣-ǯiyís yá ˀád
(thus#one.did.to.3 me-for this thing)
this recording was made (Perfective) for me' (lit. 'this thing')
č'a#yi·-ˀì·d x̣'aqata·n kaya·.
(ipse#you(pl.)-to let.me.speak sort.of)
that I might in some way speak (Hortative) to you.'

With these verbs, a Dependent Hortative clause with *-d* may function as the manner adjunct, as in (141) and (143); alternatively, the Dependent Hortative clause with or without *-d* may serve as antecedent to a pro-form manner adjunct (*yé·(#)* 'thus' or *yú·* 'thus (as precedes)'), as in (142) and (144).

(141) N-L F594:

hás#áwé ʔi-ǯiyís yé·#ʔa·-yanax̣tusaqa·-d satu·hé·-yin.

(them#FOCUS you-for thus#PART-let.us.say-PUNCT we.want-DEC

'We wanted (Decessive Imperfective) to enquire (Hortative with *-d*) after one of them for you.' [i.e., to propose a marriage]

(142) N-L E344:

ʔa-s'a·ɢ-í#ʔáwé yé·#s-ʔasayahé· has-ʔagɢat'i·x̣'.

(its-bone-POSS#FOCUS thus#PL.3.wants.3 PL-let.3.pound.3)

'They wanted (Imperfective) to pound (Hortative) the bones [in order to extract the marrow].'

(143) N-L D862:

ʔax̣łatíni-d tuwati· čʔa#hú·-ǯ.

(let.3.watch.3-PUNCT 3.wants ipse#he-ERG)

'He wanted (Imperfective) to watch it (Hortative with *-d*) himself.'

(144) N-L C504-5:

ʔa·-gqati·yí yú· ʔax̣-tu-wati· ʔa-·n qunqasʔu·k'ú-d.

(one-let.me.take.3 thus my-mind-is it-COMIT let.me.play.doll-PUNCT)

'I wanted (Imperfective) to take one (Hortative) in order to play doll (Hortative with *-d*) with it'

Such clauses similarly occur with the theme *O-ka-u-S-∅-ʔa*ɢ^{w}*(na: '-Process., invariant stem) 'S orders, commands O; S tries O'.

(145) EN: *has-ʔax̣sage·yí-d has-kaduʔa·*ɢ^{w}.

(PL-let.3.cause.3.to.become.big-PUNCT PL-one.is.ordering.3)

'They are having (Imperfective) them enlarge it (Hortative with *-d*)'

(146) EN: *ʔa-x̣ʼa-ƛá·ɢ-i ʔá-· yé·#ʔanɢaʔu·-d ʔaku·ʔa·ɢʷ*

(its-mouth-projectile.point-POSS there-LOC thus#let.3.put.3-PUNCT 3.is.trying.3)

'He is trying to put the point on [the spear].'

8.2.2.3. The Admonitive mode

The Admonitive mode is formed with the order +4 prefixes *u-ASP-* plus the ·-stem. Formally, Admonitives are identical with Irrealis Consecutives. However, Irrealis modes are required in clauses where the context is negative or dubitative, which context is always overtly specified by a particle (such as negative *(ƛé·)ł* or dubitative *gʷáł*) or a clitic (such as dubitative *#gí*). The Admonitive, although implicitly negative, occurs with none of the usual Irrealis indicators. Thus the irrealis prefix *u-* is taken to be one of the mode markers, rather than a status marker. Furthermore, the Admonitive is semantically quite distinct from the Irrealis Consecutive, and is clearly to be grouped with the Deontic modes. For these reasons the Admonitive is treated as a separate mode.

The Independent Admonitive occurs only in clauses containing the clitic *#cé*, where it is used to convey a warning. The best translation is probably 'beware lest...V' or more colloquially 'be careful not to let...V' or 'watch out or...will/might/could V', but this construction is often translated simply as a negative imperative, as seen in (147) and (148).

(147) D-D2 D47-8:

qʷá·ɢ-d#cé ʔa·-né·#xʼwán yi·hʷá·n.

(misfortune-PUNCT#ADMON.CLITIC PART-let.it.not.happen.to#be.sure you(pl.))

'Please don't let anything happen to any of you.'

(148) Story 1966:115

*ʔa-ká-d#cé ʔi-se·x'á·*ɢʷ.

(its-surface-PUNCT#ADMON.CLITIC you-let.not.forget)

'Don't forget it!'; 'Watch out or you might forget it.'

The Dependent Admonitive is formed by adding the Vicinitive postposition -ɢ*a*‘ to the Admonitive form. The resulting construction is the negative equivalent of the Dependent Hortative, translating 'lest...V' or 'so...will/would not V'.[52]

(149) N-L C666-7:

ʔáwé ƛe qúnáx̣ ta·d yi·n#áwé ʔa-·x̣ ɢ*unayé·#wtuwaʔád ha·-x̣dusƛ'i·n-*ɢ*a·*.

(FOCUS just quite night middle#FOCUS there-ABL beginning#we.went us-let.one.not.see-VICIN)

'We started off (Perfective) in the middle of the night, so we would not be seen (Admonitive with -ɢ*a*‘).'

(150) D-D2 BB119-21:

*ʔa·á, ka·wayíg-d ʔunaxí·x-*ɢ*a·#ʔáwé*

(yes, thin.air-about let.3.not.move.through.space-for#FOCUS)

'Yes, that they do not linger (Admonitive with -ɢ*a*‘) in the air

ʔax̣-ƛ'í·łkʷ du-yé·g-i#ʔáyá x̣ʷsiha·n.

(my-grandparent 3-spirit-POSS#FOCUS I.have.caused.3.to.stand)

I'm raising (Perfective) my grandparent's spirit in return.'

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[52] I have elicited examples of the Negative Hortative with *-d*, but none appear in my corpus. Furthermore, Story does not attest the Negative Hortative at all, giving the Admonitive with -ɢ*a*‘ as the Irrealis counterpart of the Purposive (i.e. the Hortative with *-d*) in the case of *ł#ʔušk'idé·n ʔunaní·-*ɢ*a*‘ 'lest it become bad' (Story 1966:11.332; the second example is a Potential and should read *qá·*ɢʷ*-d#ha*‘*-*ɢʷ*a*‘*ni*‘ '(or) we might meet with misfortune').

I have not found the Dependent Admonitive to occur after other Deontic modes; in this environment, the Potential is used instead. In 8.2.1.6.(3), reproduced here as (151), for example, the form *ˀix̣duwaǯa·ɢ* could be translated ‘lest someone kill you’.

(151) Song:

č̓a#yá·-x’ ɢ*anú, č̓a#yá·x’* ɢ*anú, ˀi-x̣duwaǯa·*ɢ.

(just#here-LOC you.sit!, just#here-LOC you.sit!, you-one.may.kill)

‘Sit (Imperative) right here; sit right here; [or else] someone might kill you (Potential).’

8.2.3. Circumstantial modes

The relationship between the Circumstantial modes and the Declarative/Deontic modes has been discussed in section 8.2. As pointed out there, the Circumstantial modes are used in a protasis (dependent clause) delimiting the time of the apodosis (main clause): the Consecutive typically pairs with the Perfective; the Conditional with the Future, Imperative, or Hortative; and the Contingent with the Habitual. This fact provides evidence for the three-way semantic categorization of the modes as past, future, and habitual.

Moreover, as discussed in 8.2.4, narrative sequences also fall into the same three tense-aspect classes: past, future, and habitual. This correlation is no coincidence. Circumstantial clauses typically occur in narrative sequences, where they have the function of reinforcing, modifying, or even updating the temporal reference of the now-window. It is hardly surprising, then, that each type of narrative sequence should have a corresponding Circumstantial mode.

When paired with a Declarative/Deontic clause, the Circumstantial clause functions semantically as a temporal adverbial specifying the pastmost limit of the time by which the situation denoted by the main clause is evaluated. The exact temporal relationship of the two situations depends on the epiaspect of the Circumstantial clause. The situation of a non-Imperfective (i.e. epiaspectually unmarked) Circumstantial clause is usually interpreted as preceding that of the main clause, as in (152).[53] The situation of am Imperfective (especially Progressive or Iterative) Circumstantial clause, on the other hand, is interpreted as overlapping that of the main clause, as in (153) and (154).[54] Note, however, that all the Circumstantial modes may occur with the Ablative postposition *-dáx̣*, in which case they unambiguously specify that the situation denoted by the main clause is completely subsequent to that of the Circumstantial clause; these forms appropriately translate ‘after...’.

(152) *ha‘d#gú·d#áwé x̣ʷsiti‘n* ‘When/after she came here (Consecutive), I saw her (Perfective).’

(153) *ha‘dé· ÿa‘#gagú·d#áwé x̣ʷsiti‘n* ‘While she was coming here (Progressive Consecutive), I saw her.’

(154) *ha‘x̣#gud#ní·gʷ#áwé x̣ʷsiti‘n* ‘When she used to come here (Iterative Consecutive), I saw her.’

---

[53] Story is not clear on this point. In Story 1966:10.321, all the Consecutive forms are glossed ‘as...’, implying overlap between situations of the dependent and main clauses (hence the label ‘Contemporaneous’); but in Story 1966:8.32, these are glossed ‘when...’ or ‘after...’, implying a disjunct temporal relationship. In all examples in my corpus, non-Progressive Consecutives are interpretable as involving a disjunct temporal relationship, hence the term ‘Consecutive’ instead of ‘Contemporaneous’.

[54] WS ruled (154) possible but unusual; EN appeared to find this sentence quite acceptable.

Recall, however, that the Perfective clause refers not simply to an event but to the state of affairs resulting from that event. In (152), then, although the act of seeing the woman follows the event of her coming, the state resulting from her coming is still in effect at the time she is seen. Schematically, then, the temporal relationships between the Circumstantial clause and the main clause in (152)-(154) may all be represented as in (155), where $(_{c}{-}{-})_{c}$ represents the boundaries of the interval denoted by the Circumstantial clause, and $(_{m}{-}{-})_{m}$, those of the main (Declarative/Deontic) clause.

(155) $--(_{c}--(_{m}--)_{m}--)_{c}--$

This time interval denoted by the Circumstantial clause $(_{c}{-}{-})_{c}$ therefore has the same properties as a narrative now-window, and can in fact be identified as such. Note that the Circumstantial clause may simply recapitulate the situation asserted by a preceding Declarative clause, as in (156), or it may assert a new situation, as in (157).

(156) N-L B131-7

(156a) *ʔá#ʔáwé ƛe ša·wád gu·x̣ du-ǯi·-d kawduwaqá· wé na·daʔé·ya· #quʔa.*

(then#FOCUS just woman slave 3-possession-PUNCT one.sent.3 that Nāda.ẽ́yā#however)

So (in return) they sent (Perfective) a female slave to Nāda.ẽ́yā.

(156b) *hẽ́ʔ! x'ú·ł' yáx̣ ʔad-yati·.*

(my! confusion like thing-is)

My, everyone was in an uproar (Stative Imperfective).

(156c) *łingíd ƛéł wuduskáí wé ʔi·x-nax̣ʔá ʔá-· yé·#qu-ti·-yí.*

(person not one-has.known that downriver-side there-LOC thus#one-is-SUB)

They hadn't known (Resultative Perfective) there were people to the south.

(156d) *ˀa·ɢá·#ˀáwé wé ša·wád gu·x̣ du-ǯi·-d kaduqá·*

(then#FOCUS that woman slave 3-possession-PUNCT when.one.sent.3)

So then, after they had sent (Consecutive) the female slave to him,

(156e) *ƛe x'u·n#sdágá·-wé qa·-x̣án-i ˀuwax̣í·.*

(just how.many#CLITIC-FOCUS one's-proximity-LOC 3.stayed.overnight)

he stayed over (Perfective) with them for some days.

Here the now-window introduced by the Perfective verb in (156a) is reinforced by the recapitulative Consective clause in (156d).

(157) EN C68-71

(157a) *ƛá·gʷ#áwé wé ˀa-da·-d has-ˀuwaˀád.*

(quickly#FOCUS that its-periphery-PUNCT PL-3.plural.went)

They quickly positioned themselves (Perfective) around it.

(157b) *s'éł' xʷán#áwé yé·-s-ˀadaɢa·ˀu·.*

(rubber boot#FOCUS thus-PL-3.has.multiple.3)

they had (Imperfective) rubber boots on.

(157c) *ƛe ˀa-ka-·x̣ ƛe yú· dáɢ-de duɢí·ǯ ƛe yú·.*

(just its-surface-ABL just thus upland-ALL one-throws.plural.3 just thus)

They [took the seals] off [and] threw them up (Imperfective) onto the bank (Perfective).

(157d) *ƛe wé ˀa-ka-·x̣ da·ɢ#has-ˀakaǯé·ł#áwé*

(just that its-surface-ABL upland#PL-when.3.handled.plural.3 #FOCUS)

After them had gotten them all up on the bank (Consecutive)

(157e) *wé ɢí·n ƛe has-ˀawłixa·š.*

(that willow just PL-3.cut.3)

they cut (Perfective) willows.

Here the now-window introduced by the Perfective clause in (157a) is supplanted by that of the Consecutive clause in (157d). We thus conclude that Circumstantial clauses either reinforce the previous narrative now-window or, like the Declarative clauses to which they correspond, create their own narrative now-window.

Note, however, that the temporal relationship between the Circumstantial clause and the main clause is not exactly the same as that denoted by the operator $PRES^N(S(x))$, which simply specifies that the time interval of $S(x)$ overlaps with that of N. As we have seen, while the time interval of the main clause may overlap with that of the Circumstantial clause to the right, it may not overlap with it to the left: the Circumstantial clause establishes the pastmost limit of the situation posited by the main clause. Let us define a tense operator $NEXT^N(S(x))$ that has this property:

> (158) $NEXT^N(S(x))$: $S(x)$ is NEXT with respect to N if $S(x)$ is true at some subinterval contained within the interval N and if $S(x)$ is not true at any time preceding the interval N.

We may use this operator to evaluate the temporal relationship between the situation denoted by the Circumstantial clause (S_c) and the situation denoted by the main clause ($S_m(x)$). For example, sentence (152) may be diagramed as shown in Figure 57.

(159) *ha‘d#gú·d#áwé χʷsiti‘n* ‘When/after she came here (Consecutive), I saw her (Perfective).’

N_1 N_0

--------(--------------)----------(----)--------

$S_c(y)$ AND

NEXT($S_m(x)$)

Figure 57. The Consecutive

That is, $S_c(y)$, the situation where the woman comes, is PAST relative to N_0, and $S_m(x)$, the situation where I see her, is NEXT relative to N_1, the now-window for $S_c(y)$, the situation where the woman comes. Thus the Consecutive mode can be described either as

(160) $\mathrm{PAST}^{N0}(S_c(y))$ AND $\mathrm{NEXT}^{N1}(S_m(x))$,

or from the point of view of $S_m(x)$,

(161) $\mathrm{NEXT}^{N1}(S_m(x))$, where N1 is the past now-window created by $\mathrm{PAST}^{N0}(S_c(y))$.

Morphological structure	**Semantic structure**
Consecutive plus Circumstantial Auxiliary	Circumstantial
Imperfective plus Circumstantial Auxiliary	Imperfective Circumstantial
Future plus Circumstantial Auxiliary	Future Circumstantial

Figure 58. Formation of the composite Circumstantial modes

As with the Habitual modes, composite Circumstantial modes can be formed by adding Circumstantial auxilaries to Consecutive verb forms according to Figure

58 (where any of the Circumstantial modes can be substituted for 'Circumstantial').[55]

Note that the composite form made by combining a Consecutive verb form plus a Circumstantial auxiliary is semantically equivalent to the corresponding simple Circumstantial mode. For example, the periphrastic Conditional in (162b), which consists of a Consecutive verb form followed by the Conditional auxiliary, is semantically equivalent to the simplex Conditional in (162a).

(162a) *x̣'anx̣awú's'ni‘* (simplex Conditional) 'if I ask him/her'

(162b) *x̣'anx̣awus'#níg^{w}ni‘* (composite Conditional) 'if I ask him/her'

We can express the temporal relationship between a Future Consecutive clause, such as those in (163), by the diagram in Figure 59.

(163) *ha‘-dé· g^{w}Gagud#ní·g^w#áwé x̣^{w}siti‘n*

(here-ALL 3.will-come#CONSEC.AUX#FOCUS I.have.seen.3)

'When she was going to come here (Future Consecutive), I saw her (Perfective)'

N_1 N_0

--------(---------------)-----------(----)--------

FUT(S_c(y)) AND

NEXT(S_m(x))

Figure 59. The Future Consecutive

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[55] All these but the Imperfective Conjunctive are illustrated in Naish 1966:7.61.

Here, as in Figure 57, $S_m(x)$ is NEXT relative to N_1. In this case, however, it is not $S_c(y)$, the situation where the woman comes, but $FUT(S_c(y))$, the situation where the woman is going to come, which is PAST relative to N_0. Here again, the logical relationship between the two situations can be described in two ways:

(164) $PAST^{N0}(FUT(S_c(y)))$ AND $NEXT^{N1}(S_m(x))$,

or from the point of view of $S_m(x)$,

(165) $NEXT^{N1}(S_m(x))$, where N_1 is the past now-window created by $PAST^{N0}(FUT(S_c(y)))$.

The Circumstantial modes also occur in a special construction with the particle *qa‛xʷá·* (frequently followed by *#šgí*), translating approximately ‘finally, at last’.[56] Here the Circumstantial form is interpreted as a declarative verb: the Contingent translates as habitual, the Consecutive as past, and the Conditional as future. This construction is well-attested in Interior Tlingit, but does not occur at all in the corpus for Coastal Tlingit.[57]

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[56] According to WS, *qa‛xʷá·* can also denote surprise: ‘believe it or not’. I have one example of a seemingly similar construction with *č’a#ˀa·ní.*
EN: *č’a#ˀa·ní ˀaǯiná·ɢ#áwé du#yí·d-k’.*
(ipse#no.way(?) when.3.let.3.go#FOCUS 3-son-DIM)
‘She wouldn’t let her son out of her sight.’

[57] The *qa‛xʷá·* construction is not mentioned in N-S and I had not heard it used in Interior Tlingit. It was accepted as valid by WS, however, and occurs in a song recorded by Swanton (if I have interpreted his transcription correctly, that is; note *c’a#* for *č’a#* and *#sgé* for *#šgí*).
JRS09:412, Song (89):
c’a#qa·xʷá·#sgé ˀa-náɢ (ỹ)a·#gxagú·d ˀax̣-ká·g#hás ˀa·n-í.
(ipse#finally#CLITIC 3REC-away.from along#I.have.started.going my-maternal.uncle#PL town-POSS)
’I am feeling very lonely away. I am going to my uncles’ town.’ (more lit. perhaps ‘I have finally started going (Progressive Consecutive) to my uncles’ town.

In Interior Tlingit, this construction appears to be confined to narratives, where it frequently serves to indicate a significant transition, as seen in (166) and (167).

(166) N-L F22-27:

(166a) *ˀa·Gá·#ˀáwé#cá ye·sú wé šá·, du-yáx̣ šá·, du-ƛá·kʷ, qa č̓u#du-šátx̣, du-ƛá·, du-da·-x̣ wu·na·*G.

(then#FOCUS#only.then next that women, 3-like women, 3-maternal.aunt, and even#3-elder.sister, 3-mother, 3-periphery-PERT 3.plural.stood)

'Then the women--women like her, [for instance] her mother's sister or her elder sister or her mother--gathered (Perfective) around her.

(166b) *qa·x̣ʷá· qu*G*así· wé t'akʷané·yi.*

(finally (when.)3.was.born that baby)

Eventually the baby was born (Consecutive).

(166c) *de t'u·g tú·-de wduʒinu·g,*

(already cradleboard inside-ALL one.carried.single.animate.3)

Now they put (Perfective) it in a cradleboard

(166d) *ǯi-wduwaˀáx̣ʷ.*

(hands-one.bound.3)

and strapped (Perfective) its hands in.

(166e) G*i·*G*áč̓ du-yi·-x̣ wuduwayi·*G,

(hammock 3-under-PERT one.stretched.3)

They set up (Perfective) a hammock for it

(166f) *ˀa-ká#ˀáwé ˀá-d dustá.*

its-surface#FOCUS it-PUNCT one.causes.3.to.sleep)

and laid (Positional Imperfective) it on it to sleep.

(167) N-L F57-9, 64-71:

(167a) *ƛe wé qa·-wa·ɢ ƛe ˀa-·x̣ kín-de dax̣-ˀašakaƛéɢʷx' ƛe,*

(just that one's-eye just there-ABL up-ALL DISTRIB-3.seizes.plural.3 just)

'It was plucking (Multiple-iterative Imperfective) the people's eyes up out [of their sockets];

(167b) *č'as#ˀa-·x̣#s'é ke·#dax̣-ˀaka·waǯéł wé qa·-wa·ɢ.*

(only#there-ABL#first up#DISTRIB-3.took.plural.3 that one's-eye)

first it removed (Perfective) their eyes.

(167c) *wá·#sdágá·yá ƛéł tú-· dunúgx̣?*

(how#in.the.world.FOCUS not self-LOC one.feels.ITER)

For some reason they didn't feel it (Iterative Imperfective).

(167d) *qa·xʷá· č'a#łdakád qa·-wa·ɢ ˀa-·x̣ ke·#ˀakaǯé·ł.*

(finally ipse#all one's-eye there-ABL up#(when)3.took.plural.3)

At last it removed (Consecutive) all the people's eyes.

...

(167e) *wá·#sáwé ˀad-wu·ni·?*

(how#WHQ.CLITIC thing-it.befell)

What was the matter (Perfective)?

(167f) *ye·sú qi·ˀá yé·#wu·ni·,*

(next dawn thus#it.befell.3)

It was now dawn (Perfective),

(167g) *qa·xʷá· k'adé·n qi·ˀá ɢax̣í·x.*

(finally well dawn (when.)3.fell)

and eventually it became full daylight (Consecutive).

(167h) *ˀa·ɢá·#ˀáwé wé ša·wád de č'a#du-šú·-d ˀaduˀag#ni·ǯ-ín.*

(then#FOCUS that woman already ipse#3-end-PUNCT one.builds.a.fire #HAB.AUX-DEC)

By this time they had usually started a fire (Decessive Imperfective Habitual) for the woman.

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(167i) *wá·#sáwé ʔad-wu·ni·?*

(how#WHQ.CLITIC thing-it.befell)

What was the matter (Perfective)?

(167j) *ƛéł cu ʔa·#sá ha·-x̣#ʔugu·d.*

(not again who#WHQ here-PERT#3.comes)

Nobody came (Iterative Imperfective) any more.

I have chosen these rather long passages to illustrate that, while it seems appropriate to state that the *qaʿxʷá·* construction indicates a significant transition, it is not necessarily the case that this transition is to be taken as a narrative change of scene. In (166), for example, the *qaʿxʷá·* construction in (166b) is used to predicate a major event in the woman's life: the birth of her child. In terms of the narrative structure, however, there is no change of scene here; a new scene starts with the sentence following (166f), where the mythical bird-creature called *ʔa·-ta-yádi* (Lake-bottom-child) is introduced. The children insult this bird, which avenges itself by plucking out all the people's eyes while they are asleep. They never wake up. Passage (167) describes how the bird plucks out their eyes, and how the woman, who was sleeping apart from them, discovered that she was alone. The *qaʿxʷá·* construction in (167d), which describes the culmination of plucking out eyes, does in fact coincide with a change of scene; however, that in (167g) apparently does not. Although it would be tempting to claim that this construction has a special discourse function, then, I find insufficient evidence for such a claim. Specifically, it would appear that the *qaʿxʷá·* construction does not in itself serve to indicate the boundary of a narrative scene or for that matter, of any unit of discourse.

Rather infrequently we find cases where *qa·x̣ʷá·* is followed by an Imperfective; an example is (168).[58]

(168) EN: *qa·xʷá·#šgí has-ʔayatí·n*

(finally#at.last PL-3.sees.3)

'They finally saw it (Stative Imperfective).'

8.2.3.1. The Consecutive mode

The Consecutive mode is formed with the order +4 prefix *ASP-* and the ·-stem. As mentioned above, the Consecutive mode usually occurs in dependent clauses paired with main clauses in the Perfective, as in (169). In a number of examples from past narrative sequences, however, we find the Consecutive clause paired with a main clause with an Imperfective form that is temporally evaluated with respect to the narrative now-window.[59] This is to say that a Consecutive clause may pair with an Imperfective clause where the latter is interpreted as past with respect to N_0, as in (170)-(173).

(169) WS: *yan#ʔad-tu·x̣á·#ʔáwé š-kawtuλini·g.*

(to.finish#thing-when.we.had.eaten#FOCUS REFL-we.recounted)

'When we had eaten (Consecutive), we told stories (Perfective).'

---

[58] Note that the verb is Stative; if the Consecutive were used instead of the Imperfective here, this would have an inchoative meaning: 'it finally became visible to them'.

[59] In such cases it seems possible to interpret the Consecutive clause as providing the now-window with respect to which the Imperfective is evaluated.

(170) EN: *yan#ʔad-tu·x̣á·#ʔáwé š-katu·łni·g.*

(to.finish#thing-when.we.had.eaten#FOCUS REFL-we.are.recounting)

‘When we had eaten (Consecutive), we told stories (Imperfective).’

(171) N-L C204-5:

ƛe wé gán yan#yé·#has-ʔasní· ne·ł-dé tu·yá·,

(just that firewood to.finish#thus#PL-when.3.had.done.to.3 inside-ALL we.are.packing.3)

‘After they had gotten (Consecutive) the firewood we packed (Imperfective) it in,

ʔax̣-ʔi·k'-tin katu·čá·g.

(my-brother-COMIT we.are.storing.3)

my brother and I stacked (Imperfective) it up.’

(172) D-D1 C162-3:

ƛax̣ x'u·n ʔa· yagiyi· šunaxí·x#sáwé č̓a#ye·sú ʔax̣éx^{w}.

(very how.many one day when.3.had.elapsed#WHQ.FOCUS ipse#still one.plural.is.sleeping)

’When many days went by (Consecutive) they were still asleep (Positional Imperfective).’

(173) D-D1 I50-1:

ʔáyá ʔa-ká-x'#áyá ke·#x̣'us-wušix̣'ił'.

(FOCUS its-surface-LOC#FOCUS up#foot-3.slipped)

’And her foot slipped (Perfective) in it [bear feces].

ʔáǯ#áyá ʔa-dx̣ gadahá·n łdakád du-da·-∅ yé·#yati·.

(therefore#FOCUS there-ABL when.3.had.stood.up all 3-periphery-LOC thus#3.is)

So when she stood up (Consecutive) it was (Stative Imperfective) all over her.’

Thus, while it is true that the Consecutive USUALLY pairs with the Perfective, a more precise statement would be that it occurs with any main-clause verb denoting a situation that is past relative to N_0.

The Consecutive may occur with the postposition *-dáx̣*, as illustrated in (174b).

(174a) *yé'#naní·#ˀáwé čʼa#ɢu·d yé·-deʻ wuʻtiʻ.*

(thus#when.it.had.happened.to.3#FOCUS ipse#other way-ALL 3.became)

'When that happened to him (Consecutive), he changed (Perfective).'

(174b) *yé'#naní·-dáx̣#ˀáwé čʼa#ɢu·d yé·-ALL wuʻtiʻ.*

(thus#when.it.had.happened.to.3-ABL#FOCUS ipse#other way-like 3.became)

'After that happened to him (Consecutive with *-dáx̣*), he changed (Perfective).'

The difference in meaning with the Progressive Consecutive is more difficult to translate, but here again, the form with *-dáx̣* specifies a time after the progressive motion has been completed. With (175) compare also (153), where the Progressive Consecutive is translated 'while walking'.

(175) WS: *ya·#gagú·d#áwé ˀa-x̣'é-· ke#ˀuwagúd.* (also *ya·#nagud#nú·g #áwé...*)

(along#when.3.was.walking#FOCUS its-mouth-LOC up#3.came) (also along#3.is.walking#CONSEC.AUX...)

'When she started walking (Progressive Consecutive), she caught up with it (Perfective).'

(176) WS: *ne·ɬ-dé ya·#gagú·d-dáx̣#áwé hí·n ˀawʒiɢa·x̣.*

(home-ALL along#3.is.walking-ABL#FOCUS water 3-asked.for.3)

'After walking home (Progressive Consecutive with *-dáx̣*), he asked for water (Perfective).'

The Consecutive also rarely occurs with the postposition *-deʻ* 'toward', as seen in (177).[60]

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[60] I have found one puzzling example of what appears to be a Consecutive with the Locative postposition *-x'*. When I have attempted to construct other forms according to this pattern, such forms have either been rejected or adjudged marginal by WS.
D-D2 R38-9:

(177) EN: *x̣ad-wudax̣ʷe·ƛ-ín yú kú·ɢ yí-d ʔaxí·x-de.*

(me-has.become.tired-DEC yon pit inside-PUNCT when.sun.moved-ALL)

'I was tired right up till noon.' [lit. 'up to when the sun moved to (where it shone) inside the housepit']

No example of the periphrastic Consecutive occurs in the texts; the elicited (178b) is semantically indistinguishable from the non-periphrastic Consecutive in (178a), but WS says *#ní·gʷ/#nú·g* 'adds a finishing touch,' so that (178b) sounds more elegant.

(178a) WS: *ne·ł#gú·d#áwé ʔad-ʔuwax̣á·.*

(home#when.3.had.come#FOCUS thing-3.ate)

'After he had come home (Consecutive) he ate (Perfective).'

(178b) WS: *ne·ł#gud#nú·g#áwé ʔad-ʔuwax̣á·.*

(home#when.3.had.come#CONSEC.AUX#FOCUS thing-3.ate)

'After he had come home (Consecutive) he ate (Perfective).'

Two examples of the Future Consecutive occur in the corpus. In both cases the main clause verb is in the Imperfective with past interpretation.

(179) N-L C737-8:

ʔá#ʔáwé ʔá-· ǯigax̣tu·naɢ#ní·gʷ#áwé ƛe x̣ád#quʔa ƛe ʔa-da·-dé x̣aɢá·x̣ wé ʔád.

ʔa-ká-· ʔayax̣dalí·-x'#áwé ɢunayé·#ʔułti·dǯ yak'é·-yi ł'é·w-de·.
(3REC-surface-LOC when.wind.had.come.up-LOC#FOCUS beginning#3.is.moved.by.waves. HAB 3.is.good-ATTR sand-ALL)
'After the wind would blow (Consecutive with *-x'*) over it, it would begin to roll with the waves (Habitual) to a fine sand.
ʔá-d ɢałalídin#áwé ł'é·w yan#ʔułha·ǯǯ.
(3REC-to whenever.3.is.moved.by.waves#FOCUS sand ashore#3.drifts.HAB)
When it rolled on the waves (Contingent) to the sand it would drift ashore (Habitual).'
What is especially puzzling about the Consecutive with *-x'* in the first sentence is that it is paired with an Habitual; we would rather expect a Contingent to pair with the Habitual, as in the following sentence.

(then#FOCUS there-LOC we.will.let.3.go#CONSEC.AUX#FOCUS just I#however just its-periphery-ALL I.am.crying that thing)

'So when we were about to let [the baby goat] go (Future Consecutive) I cried (Imperfective) over it.'

(180) D-D2 O84-6:

ʔa·ɢá·#ʔáwé ke·#ʔakagʷɢaši·#nú·g#áwé wé ši ʔá-· ya·#gúdǯ wé ne·ł.

(then#FOCUS up#3.will.begin.to.sing.3#CONSEC.AUX#FOCUS that song there-LOC aside#3.goes.ITER that inside)

'Then, when he was going to sing (Future Consecutive) this song, he paced around (Iterative Imperfective) in the house.'

The *qa·x̣ʷá·* construction with the Consecutive has been illustrated in 8.2.3. Following are a few more examples.

(181) N-L F149-51:

ƛe wu·ǯ-kiná·-de ya·#ʔakanaǯéł.

(just RECIP-above-ALL along#3.is.carrying.plural.3)

'She kept putting them (Progressive Imperfective) [on her child], one on top of the other.

qa·x̣ʷá·#šgi yé·#ya·#kagu·ƛá· yúʔá, wé du-yád-k'-u#cú.

(finally#CLITIC thus#along#3.is.becoming.stout QUOT, that 3-child-DIM-POSS#also)

Finally she was getting quite round (Progressive Consecutive), they say, and her child, too.'

(182) N-L F369-71:

ƛe č̓u#na·ƛi·-yi yé·-de#ʔáyú yúʔá ʔasayaʔáx̣ǯ.

(just even#3.is.far-ATTRIB place-ALL#FOCUS QUOT 3.hears.3's. voice)

'He heard her voice (Stative Imperfective) even from afar off

č̓u#ƛe č̓a#qa·x̣ʷá·#dé· č̓a#ʔa-kawánǯak'u ʔaʔax̣ǯi#ní·gʷ,

(even#just ipse#finally#now ipse#its-bare.little.edge 3.hears.3 #CONSEC.AUX)

and eventually could just barely hear her (Imperfective Consecutive) *wé ʔax̣ʼayawuʔa·-yi.*

(that 3.shushed.3-SUB)

shushing (Subordinative Perfective) [her baby].’

The Imperfective Consecutive in this passage is the only example of an Imperfective Circumstantial mode in the corpus.

8.2.3.2. The Conditional mode

The Conditional mode is formed with the order +4 prefix *ASP-* plus the n-stem followed by *-(n)i‘*. This is semantically the future Circumstantial mode, generally translating ‘if...’ or ‘when...(in the future)’ in English.

(183) N-L D1052-7:

ʔa·Gá·#xʷán, gu·-náx̣#sá wduwati· wé ʔi-wú· --

(then#be.sure, where-PERL#WHQ one.has.put.3 that your-father.in.law)

At that time, where your father-in-law was laid to rest (Perfective) --

kʼadé·n ya·#ʔi-gaťi·ni, ʔa-ká-· da·g#tigGidatánǯ yá ʔax̣-yu·#x̣ʼatáng-i --

(well along#you#when.is.becoming, its-surface-LOC out#your. thoughts.will.move.ITER this my-repeatedly#speaking-POSS)

if you continue to do well (Progressive Conditional), my words will keep coming back to you (Iterative Future) --

čʼa#wá·#sá naťi·ni du-ká, Gisaťinni#ʔáwé yé·#ʔi-tu-gʷGaťi·,

(ipse#how#WHQ when.3.is 3-surface, when.you.see.3#FOCUS thus#your-mind-will.be)

if there is anything wrong (Conditional) with his grave, when you see it (Conditional) you will think (Future),

‘ʔó·, ʔi·šá·n ʔax̣-wú· yax̣gú·s’, kʼe ʔa·dé· yati·-yi yé.’

(oh, poor.thing my-father.in.law Yax̱guś’,how.about thus 3.is-ATTR way)

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"Oh, my poor father-in-law Yax̱guś',what a state he is in."

In passage (183), all the Conditionals pair with Futures; in (184), however, the Conditionals pair with an Imperfective that is interpreted as future relative to N_0.

(184) N-L D1047-9:

*ʔi-ǯin-d ǯi·ni-dáx̣, du-tú·-*Ga· *ya·#yé·#ǯigi·ne·ní,*

(your-hand-PUNCT when.3.reaches-ABL 3-mind-conforming.to along#thus#when.you.are. working)

'After he takes your hand (Conditional with *-dáx̣*), when you begin to please him with your work (Progressive Conditional), [more lit. '...when you are working along to his satisfaction']

*ʔa·*Gá*·#ʔáwé de ƛ̓éɬ#áwé ʔunaɬí du-yi·-ʔa·n-í.*

(then#FOCUS already not#FOCUS 3.is.far 3-awaiting-land-POSS)

he will not have much more time on this earth.' [lit. 'then the ground awaiting him (i.e. his final resting place) is not far (Imperfective)']

Here, as in the Consecutive examples we have seen, the Conditional with *-dáx̣* specifies that the situation of the main-clause verb follows the time denoted by the Conditional clause; with the Progressive Conditional, on the other hand, the situation of the main-clause verb is contained in the interval denoted by the Conditional clause.

Only one possible example of an Imperfective Conditional was found in the corpus; this is (185). Example (186) illustrates the Future Conditional.[61]

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[61] The theme in (185) is *O-S-ɬ-tin* (0: root-Process.); because the root is invariable, it turns that the Imperfective is homophonous with the Consecutive. This form may thus either be a periphrastic (Consecutive plus auxiliary) Conditional or an Imperfective Conditional.

(185) D-D1 O39:

yiłatin#núgni té·-x̣ yi·-gux̣saƛ́i·.

(you.are.watching.3#COND.AUX stone-ESS you.pl.-will.become)

'If you look at it (Imperfective(?) Conditional), you'll turn to stone (Future).' [more lit. 'If you watch/observe it...']

(186) WS: *ye·#gux̣dax̣id#nugni#ʔáwé*

(down#3.will.reproduce#COND.AUX#FOCUS)

'when [an animal] is about to give birth (Future Conditional)'

One example of the *qa·x̣ʷá·* construction with a Conditional verb is also found. The context here is that a young man has obtained the blessing of the Tl'anaxíidáḵw.[62] She is instructing him in a dream about the rite of blessing. The people are to construct eight 'dams' of brush which, after the young man prays, are to be 'broken through' and thrown onto his head, as if by a 'river' of blessing.

(187) N-L F492-3:

yé·#ʔáwé ʔałx̣é·s' ƛe dág-de šayagax̣dułGí·ǯ.

(thus#FOCUS 3.is.praying just out-ALL one.will.toss.plural. piles.of.3)

'He was to be praying (Imperfective) thus and they were to toss the piles down (Future).

qa·xʷá· hú·č'i ʔa·-yí da·g#šayadusGíx̣'ni.

(finally last one-POSS out#(when.)one.throws.single.pile.of.3)

Finally, they were to toss the last pile down.'

---

[62] This is the 'Property Woman', a woman transformed into a hairy creature along with her child, who grants wishes to those who manage to take her child from her.

8.2.3.3. The Contingent mode

The Contingent mode is formed with the order +4 prefixes *ASP-ɢa-* plus the n-stem, usually followed by *-ín* in Northern Tlingit. This is the habitual Circumstantial mode, which nearly always pairs with the Habitual. Like the Consecutive and Conditional, however, it may occasionally pair with the Imperfective. For further discussion of this see 8.2.1.6; a couple more examples are given here.

(188) N-L D1020:

ƛe cu qá·#ˀáwé ˀayanaλáɢʒ wé šá·wád yaqa-nɢatí·nín.

(just again man#FOCUS 3.overcomes.3 that woman words-whenever.3. carries.3)

'The women even outdo (Perfective Habitual) the men when they swear (Contingent).'

(189) N-L E910-1:

ˀáwé wé ne·ɬ-d has-ˀayagɢaʒéɬín ƛe yé·#ˀáwé has-ˀagɬaχut'di#ni·ʒ.

(FOCUS that inside-PUNCT PL-whenever.3.takes.plural.3.in.loads just thus#FOCUS PL-3.is.splitting.3#HAB.AUX)

'When they brought them inside (Contingent) they would spit them with axes (Imperfective Habitual).'

An example of the Future Contingent is (190):

(190) WS: *guɢana·#ɢanúgún#áwé č'a#yati·-yi yé·-de#ˀáwé nagúdʒ.*

(3.will.die#CONTING.AUX#FOCUS ipse.3.is-ATTR place-ALL#FOCUS 3.goes)

'When (an animal) is about to die (Future Contingent), it goes (Perfective Habitual) to a place of its choosing.' [lit. '...to a place which just is.']

Finally, one example of the *qaˈx̣ʷá·* construction with the Contingent has been found:

(191) EN: *yan#ʔad-qatu·x̣é·nín#áwé š-katu·łnig#ni·ǯ.*

(to.finish#thing-whenever.we.eat#FOCUS REFL-we.are.recounting #HAB.AUX)

'After we've finished eating (Contingent) we tell stories (Imperfective Habitual).

č̓a#ƛ́ágʷ#áwé tudaná wé yat'a·-yi hí·n.

(ipse#always#FOCUS we.are.drinking.3 that 3.is.warm-ATTR water)

We keep drinking (Imperfective) tea.

č̓a#ʒiyá·gi·n#áwé tá ha·-ka·-dé ya·#gagúdǯ.

(ipse#later#FOCUS sleep our-surface-ALL along#3.keeps.coming)

Later on, we get sleepy. [lit. '...sleep is always coming (Progressive Habitual) onto us.']

qa·xʷá· naxtu·x̣éx'ún.

(finally (whenever.)we.sleep)

Finally we go to sleep (Contingent).

8.2.4. Synopsis of the modes

Figure 60 is an expanded version of Figure 47 in 8.1.3, which takes into consideration not only the Independent (Declarative and Deontic) modes but the Circumstantial modes. Here again, the formulae heading the columns are to be substituted for f(S) within the formulae heading the rows. With the circumstantial modes, the resultant formula is in each case to be followed by AND NEXT(S_m).

The following points are further to be noted. First, the Perfective is to be represented either as RESULT^N(S) or as PAST^N(S) AND RESULT^N(S). Second, the Negative Perfective Habitual is provisionally to be represented as NOT-YET^N(S). Third, the Future Habitual is apparently to be represented

	NON-FUT		**FUT**	
	NON-IMPERF	**IMPERF**	**NON-POT**	**POT**
INDEPENDENT MODES:				
$f(S)$:	**S**	**$\mathrm{IMPF}(S)$**	**$\mathrm{FUT}^{N}(S)$**	**$\mathrm{POT}^{R}(\mathrm{FUT}^{N}(S))$**
$f(S)$	Perfective	Imperfective	Future	Potential
$\mathrm{HAB}^{N}(f(S))$	Perf. Habitual	Impf. Habitual	Fut. Habitual	
$\mathrm{REQUEST}^{P}(f(S))$			Imperative/ Hortative	Optative
CIRCUMSTANTIAL MODES:				
$f(S_c)$:	S_c	**$\mathrm{IMPF}(S_c)$**	**$\mathrm{FUT}^{N}(S_c)$**	
$\mathrm{PAST}^{N}(f(S_c))$ AND $\mathrm{NEXT}(S_m)$	Consecutive	Impf. Consec.	Fut. Consec.	
$\mathrm{FUT}^{N}(f(S_c))$ AND $\mathrm{NEXT}(S_m)$	Conditional	Impf. Cond.	Fut. Cond.	
$\mathrm{HAB}^{N}(f(S_c))$ AND $\mathrm{NEXT}(S_m)$	Contingent	Impf. Conting.	Fut. Conting.	

Figure 60. Semantic analysis of the Tlingit modes

$FUT^N(HAB^N(S))$ rather than $HAB^N(FUT^N(S))$. Fourth, the Admonitive is a negative counterpart of the Imperative/Hortative, i.e. $DESIDER(NEG(FUT^N(S)))$.

An examination of the headings above the columns also reveals a potentially interesting imbalance in the schetic system. Note in particular that the imperfectivity distinction found in the non-future categories is not manifested in the future categories; that is, Tlingit makes no formal distinction between perfective and imperfective future situations.[63] In the future categories, on the other hand, we find the distinction between non-potential and potential, which is lacking in the non-future categories.

8.3. The epimodes

Whereas the modes form a relatively coherent system, the epimodes do not; rather, they supplement that of the modes. The Prohibitive-Optative complements the Deontic modes, and the Decessive provides an additional schetic dimension in the Declarative modes. The epimodes thus exhibit even less of a semblance of semantic unity than the modes.

What leads me to treat the epimodes as a group is the fact that they are mutually exclusive and thus can formally be considered to form an inflectional dimension, and that, together with the Subordinative, they are formed with order -5 suffixes. Furthermore, the following generalization holds for the epimodal forms as well as the Subordinative and Gerundive forms, which are together termed non-Assertive:

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[63] Such a distinction is formally maintained in the Prohibitive-Optative; however, I am not sure to what extent this formal distinction is semantically utilized (see 8.3.1).

> (192) Whereas the Assertive Realis form of a mode (i.e. the form unmarked for epimode and status) may take the I-component of the classifier, the non-Assertive forms always lack the I-component.

8.3.1. The Prohibitive-Optative epimode

The Prohibitive-Optative epimode is formed with the order -5 suffix -*i*ʻɢ ~ -ɢ and the order -4 prefix *u*-. The Prohibitive-Optative occurs only in the Imperfective and Perfective modes.[64] Semantically, it fits with and complements the Deontic modes. There are two uses of the Prohibitive-Optative, which I will call the PROHIBITIVE and the OPTATIVE. The Prohibitive functions as the negative counterpart to the Imperative and Hortative modes; it creates negative commands and exhortations. The Optative, on the other hand, expresses a wish.

Prohibitives are distinguished by the negative particle *ƛ̓é·ł* 'not' or the prohibitive interjection *(ʔi)ƛ̓* 'don't!' followed by the negative clitic *ł*. All examples of Prohibitives in the corpus are Imperfectives. However, WS says that the Perfective Prohibitive is possible and means the same thing as the Imperfective Prohibitive, as seen in (193b). Furthermore, with Eventive and Motion verbs, the

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[64] Story attests only Imperfective Optatives; see Story 1966:10.22. When I attempted to elicit an Habitual Optative, WS recognized it but called it 'unusual'; I doubt that such a form is used, since Negative Iterative Imperfectives, rather than Negative Habituals are used for negative habitual situations.

Perfective Prohibitive must be used to express a non-iterative prohibition, as seen in (194), since these verbs have no non-Iterative Imperfectives.

(193a) Theme *O-S-∅-χ̣a*·* (0: ’-Process.) ‘S eats O’

(193b) *łí#ł ˀiʿχ̣á·*G (Imperfective Prohibitive) or *łí#ł ÿiχ̣aˤÿi·*G (Perfective Prohibitive) ‘don’t eat it!’

[also *ƛé·ł ˀiʿχ̣á·*G or *ƛé·ł ÿiχ̣aˤÿi·*G]

(193c) *łí#ł ˀiʿχ̣é·χ̣i*G (Iterative Imperfective Prohibitive) ‘don’t ever eat it!’

(194a) Theme *O-ł-xʷeλ*’* (0: Event.) ‘O becomes tired’

(194b) *łí#ł ÿiłaxʷé’λi‘*G (Perfective Prohibitive) ‘don’t become tired!’

(194c) *łí#ł ˀiłaxʷéλχ̣i‘*G (Iterative Imperfective Prohibitive) ‘don’t ever become tired!’

Prohibitives may be formed from all varieties of Imperfectives, corresponding to all varieties of Imperatives. Iterative Imperfective Prohibitives correspond to Iterative Imperatives, and Progressive Imperfective Prohibitives to Progressive Imperatives, as seen in (195).

(195a) Theme *S-∅-gud** (Motion) ‘single S, walks, goes overland’, with *ne‘ł#* (0) ‘going inside; going home’

(195b) *ne‘ł#gú.* (Imperative) ‘come inside!’

(195c) *łí#ł ne‘ł#ÿigu‘dí·*G. (Perfective Prohibitive) ‘don’t come inside!’

(195d) *ne‘łχ̣#nagú* (Iterative Imperative) ‘come inside (repeatedly)!’

(195e) *łí#ł ne‘łχ̣#ˀigu‘dí·*G. (Iterative Imperfective Prohibitive) ‘don’t (ever) come inside!’

(195f) *ne‘łdé· ÿa‘#gagú.* (Progressive Imperative) ‘walk along toward home!’

(195g) *łí#ł ne‘łdé·#ÿa‘#ni·gúdi‘*G. (Progressive Imperfective Prohibitive) ‘don’t walk along toward home!’

Other examples from texts:

(196) N-L E768:

*ƛí#ɬ ha·-da·-d yi·-tu-·ští·-*G.

(don't#not our-periphery-PUNCT you(pl.)-mind-be-OPT)

'Don't be concerned about us (Imperfective Prohibitive).'

(197) D-D1 C212:

*ƛéɬ wá·#sá yu·#ˀune·g-í*G..

(not how#WHQ repeatedly#it.happens.to.3.ITER-OPT)

'Don't [ever] let anything happen to it (Iterative Imperfective Prohibitive).'

Optatives are distinguished by the particle *guˀa'* (probably historically some kind of interrogative particle, see below), obligatorily followed by the negative *ɬ* and optionally by the clitic *#g*^{w}*šé* 'I wonder'.[65] They denote wishes, translating 'would that...', 'I wish...', or 'I hope...'.

(198) Story 1966:6.44, p. 147:

*guˀa·#ɬ ha·x̣#ˀugu·d-í·*G.

(PARTICLE#not hither#3.comes.ITER-OPT)

'I wish he'd come here [repeatedly] (Iterative Imperfective Optative).'

(199) D-D2 R49-50:

guˀa·#ɬ#g^{w}*šé yé·#yi·-wuti·-yí*G *ˀa-ˀıd-dáx̣*.

(PARTICLE#not#I.wonder thus#you.(pl.)-became-OPT its-following-from)

'My hope is that you become (Perfective Optative) like this from now on.'

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[65] Note also *guˀa'#ɬ yé'#g*^{w}*šé* 'I hope so!', a pro-form for the optative Optative in the same way that *(ˀi)ƛ́* 'don't!' is a pro-form for the prohibitive Optative. In the examples in Story 1966:6.44, *guˀa'#ɬ* is apparently confused with *g*^{w}*áɬ* 'perhaps, maybe'.

(200) D-D2 T210-1:

guʔa·#ł#gʷšé yi·-tú·-de· wuxu·g-u yé yáx̣ wuti·-ɢ *yi·-tu-łaʔi·šá·ni.*

(PARTICLE#not#I.wonder your.(pl.)-inside-ALL 3.has.dried-ATTRIB way like 3.became-OPT your(pl.)-mind-pity)

'My hope is that your grief be drying to your core.' [more lit. 'Would that your grief be (Perfective Optative) as if it had dried (from your exterior) to your interior.']

An interesting example was obtained from WS:

(201) WS: *gu·sú č̓a#du-tu·wú ʔuní·g-u*ɢ *has-du-ǯi-yís?*[66]

(where.is.it just#3-mind 3.is.sick-OPT PL-3-hand-for)

'Why doesn't he have a feeling of sorrow for them?'

This illustrates what I believe to be the original function of the Prohibitive-Optative. Historically, the Prohibitive-Optative is clearly a Negative construction, as shown by the occurrence of the negative clitic *ł* and the irrealis prefix *u-*.[67] In particular, it would appear to be the verbal counterpart to the nominal construction *ka-ł-N-*ɢ 'without N', e.g. *kałtí·ł*ɢ 'shoeless, barefoot', from *tí·ł* 'shoe'. It seems likely, then, that what we call the Prohibitive-Optative was originally a negative counterpart to the Gerundive or Subordinative: '(being) without V-ing'. Hence (201) is roughly 'Where is it that he lacks sorrow for them?'

The Prohibitive would then originally have been an elliptic construction with an omitted verb of existence (much like the Potential construction discussed in 8.2.1.5). Thus *ƛ̓é·ł ʔi·x̣á·*ɢ would originally have meant something like '(Be) without your eating!'. The comparable and still productive construction illustrated in (202) lends support to this analysis.

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[66] One would expect the negative clitic *ł* after *gu·sú*; perhaps it was omitted.

[67] Moreover, the Optative suffix is clearly cognate with the Eyak negative suffix -ɢ, which is added to both verbs and nouns.

(202) *ʔa*-ɢú·*d#dé· wé* ɢ*a*·*x̣*.

(it-without#now that weeping)

'Enough now of crying!'; 'Stop crying now!'

Similarly the Optative must have had its origin in a type of rhetorical question, as shown by the fact that the clitic *#gʷšé* 'I wonder' can accompany it. Thus *guʔa'#ł#gʷšé ʔi·x̣á·*ɢ must have meant something like 'I wonder why your being without eating (must be the case)?', implying that the speaker wishes that an alternative to this negative situation could be found. It seems possible that the Prohibitive is in the process of supplanting the original prohibitive construction, namely the Admonitive. This hypothesis would explain why it is that the language allows itself the luxury of supporting these two quite different constructions with very similar meanings, and why the Admonitive with -ɢa' is the negative counterpart to the Hortative with *-d*.

Synchronically, the Prohibitive is simply the negative counterpart to the Imperative/Hortative, and so has the semantic structure in (203).

(203) Prohibitive: $\mathrm{REQUEST}^{P}(\mathrm{NEG}(\mathrm{FUT}^{N}(S(y))))$

As for the Optative, I will tentatively propose that it could be interpreted as expressing a desire for a possible world where the situation obtains. In this connection, Wilson and Sperber (1988:86) argue that 'the difference between hortatives and optatives seems to be that while both involve beliefs about desirability, only hortatives involve beliefs about potentiality: one can wish for, but not exhort someone to bring about, states of affairs that one knows to be unachievable.' While I would agree that hortatives and optatives differ as to potentiality, I would not agree that the optative implies lack of potentiality, i.e. inachievability. For Tlingit at least, it does not seem accurate to characterize the Optative as expressing a desire for the impossible. Examples (199) and (200), for instance, are taken from potlatch speeches. Bringing about the desirable future states of affairs predicated in such sentences is in fact the purpose of the potlatch in general and the speeches in particular, so we may safely infer that the speaker has reason to hope that these states of affairs are possible.

It is true, however, that unlike Imperatives, Hortatives, and Prohibitives, Optatives are not requests addressed to anyone in particular. This fact might be seen as a conventional implicature stemming from the fact that a request for a state of affairs that obtains in an alternate possible world is, in effect, a world-changing request. Real-world requests are naturally addressed to other people, whereas world-changing requests are naturally directed toward the supernatural forces that control the manifestation of worlds.

The Optative will thus provisionally be assigned the structure in (204). As seen in 8.1.3, this analysis allows us neatly to fill a gap in the array of modes.

(204) Optative: $\mathrm{REQUEST}^{P}(\mathrm{POT}^{R}(\mathrm{FUT}^{N}(S(y))))$

8.3.2. The Decessive epimode

Decessive forms of Declarative modes are formed by adding the order -5 suffix *-i'n*; Attributive forms of these Decessives are formed by reducing *-i'n* to *-i*.

Decessive forms of Subordinative forms of Declarative modes are formed by adding *ÿí·ÿi‘* (also a nominal postmodifier translating ‘former’) to the Subordinative form. Decessives are formed from all Declarative modes except for the Realizational.

The Decessive can be logically expressed with a combination of semantic elements already introduced. Formula (205) is a general statement for the Decessive, where f(S(x)) stands for the logical formula for some Decessive mode. It will be necessary, however, to reinterpret this formula somewhat for each Decessive mode.

(205) DEC(f(S(x)) IMPLIES PAST^{N0}(f(S(x)) AND
NEG(PRES^{N0}(f(S(x)))

According to this formula, then, DEC(f(S(x)) generally means that f(S(x) was true at some time in the past, but is no longer true in the present. Furthermore, the tense components of the Decessive seem always to be evaluated with respect to the speech-act now-window.

In narrative sequences describing situations that used to be true and are no longer true, variation between Decessive and non-Decessive forms is quite common. A striking example is (206), where the same verb is non-Decessive in (206a) and Decessive in (206c). The opposite order is exemplified by (207).

(206) N-L D812-7:

(206a) *ƛéł cu yú ł’e·x̣-dé x̣ad-ǯi·duná*ɢx̣,

(not again that dance-ALL me-one.lets.go.ITER)

They wouldn’t let me go (Iterative Imperfective) to dances, (206b) *č'u#ƛe č'as#ne·ł, č'as#wé ne·ł yé·#da·né, that's all.*

(even#just only#home, just#that home thus#working.on.3, that's all)

just home, working around the house, that's all.

(206c) *ƛéł#áyá ʔax̣-x̣u·n-í ša·-xʷ-sá·ni-tín x̣ad-ǯi·dunáɢx̣-in.*

(not#FOCUS my-friend-POSS woman-plural-DIM.PL-with me-one.lets.go. ITER-DEC)

They wouldn't let me go out (Decessive Iterative Imperfective) with the other girls.

(207) N-L E302-3:

(207a) *ǯi-·x̣łatínǯ-in#x̣á wé ʔax̣-wú·,*

(hand-I.always.watch.3-DEC#you.see that my-father.in.law)

I used to watch (Decessive Perfective Habitual) my father-in-law work;

(207b) *č'u#ƛe yá ʔa-ta·y-í ƛe ʔa-da·-dáx̣ ʔanałx̣'išǯ ƛe yú·.*

(even#just this its-fat-POSS just its-periphery-ABL 3.always. flays.3 just thus)

he would flay off (Perfective Habitual) the fat like this.

The non-Decessive verbs here are clearly to be interpreted as if they were Decessive. This phenomenon thus appears to be similar to the interpretation of Imperfective forms as Imperfective Habitual in a habitual narrative (see 8.2.1.6.1). In both cases, overt marking for a schetic category (here Decessive, there Habitual) may optionally be omitted where the narrative context makes it clear that the verb form is to be interpreted as so marked. As mentioned in 8.1.4.4, both these phenomena appear to be cases of neutralization of a schetic category.

Decessive Imperfective and Decessive Perfective verbs also occur in clauses with the hypothetical clitic *#ʔú'š*, which substantially modifies the semantics of the Decessive verbs. For examples and discussion of this construction, see sections 8.3.2.3 and 8.5.3.

8.3.2.1. The Decessive of present-tense modes

The Decessive is to be understood as a semantic operation on the tense component of the Declarative mode. All present-tense modes behave alike, and will therefore be treated together; these are the Imperfective, the resultative Perfective, and the Perfective Habitual and Imperfective Habitual. Let f(S(x)) stand for the aspectual component of these modes: IMPF(S(x)) for the Imperfective, RESULT*(S(x)) for the resultative Perfective, HAB(S(x)) for the Perfective Habitual, and HAB(IMPF(S(x)) for the Imperfective Habitual. The semantic representation of the Decessive of these modes may then be expressed by formula (208).

(208) $\mathrm{DEC(f(S(x))\ IMPLIES\ PAST^{N0}(f(S(x))\ AND}$

$\mathrm{NEG(PRES^{N0}(f(S(x)))}$

That is, the Decessive denotes that f(S(x)) was true at some time in the past but is no longer true. Examples (209)-(211) illustrate the Decessive of present-tense modes with Processive, Stative, and Involuntary Eventive themes, respectively.

(209a) *O-S-∅-x̣a*·* (∅: ʼ-Process.) ‘S eats O’

(209b) *x̣ax̣á* (Primary Imperfective) ‘I am eating it; I eat it (as a rule)’

(209c) *x̣ax̣áỷi‘n* (Decessive Primary Imperfective) ‘I was eating it (but have stopped); I used to eat it, ate it (as a rule)’

(209d) *x̣ax̣á·#nu‘ʒ* (Primary Imperfective Habitual) ‘I eat it (habitually)’

(209e) *x̣ax̣á·#nu‘ʒi·n* (Decessive Primary Imperfective Habitual) ‘I would eat it (habitually in the past, but no longer)’

(209f) *x̣ax̣é·x̣* (Iterative Imperfective) ‘I keep eating it (repeatedly); I am eating at it, repeatedly undertaking to eat it; I eat it (habitually)’

(209g) *x̣ax̣é·x̣i‘n* (Decessive Iterative Imperfective) ‘I kept eating it (repeatedly); I was eating at it; I would eat it (habitually in the past)’

(209h) *x̣ax̣é·x̣#nu‘ǯ* (Iterative Imperfective Habitual) ‘I keep eating it (habitually); I keep eating at it; I eat it (habitually)’[68]

(209i) *x̣ax̣é·x̣#nu‘ǯi·n* (Decessive Iterative Imperfective Habitual) ‘I kept eating it (habitually); I kept eating at it; I would eat it (habitually in the past)’

(209j) *x̣ʷax̣á·ÿǯ* (Perfective Habitual) ‘I eat it (habitually)’

(209k) *x̣ʷax̣á·ÿǯi‘n* (Decessive Perfective Habitual) ‘I would eat it (habitually in the past)’

(209l) *ƛé·ɬ x̣ʷax̣á·ÿǯ* (Negative Perfective Habitual) ‘I haven’t eaten it (yet)’

(209m) *ƛé·ɬ x̣ʷax̣á·ÿǯi‘n* (Decessive Negative Perfective Habitual) ‘I hadn’t eaten it (at some time in the past, but have since done so)’

(210a) Theme *qu-∅-ké·* (ga: ÿ-Stat.) ‘the weather is/becomes good’

(210b) *quwak’é·* (Imperfective) ‘The weather is nice.’

(210c) *quk’é’ÿi‘n* (Decessive Imperfective) ‘The weather was nice (but has since turned bad).’

(210d) *qu‘wak’é·* (Perfective) ‘The weather became nice (and still is so).’

(211a) *O-S-s-ku•‘* (∅: Invol. Event.) ‘S comes to know O’

(211b) *x̣ʷasikú·* (Resultative Perfective) ‘I have come to know it; I know it; I knew it (and still do)’

(211c) *x̣ʷasakú’wu‘n* (Decessive Resultative Perfective) ‘I had come to know it, knew it (but no longer do)’

A point that should be clarified here is illustrated by the translation of (210c). This sentence could be said at a time when the weather was nice, so it obviously does not mean ‘The weather was nice (but is now bad).’ Likewise, (212) could be said by someone who left Sitka during childhood and has since moved back.

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[68] See note 32.

(212) WS: *ši·t'ká-x'#áwé yé·#x̣ad-ú·-yin ʔadk'áʒk'u-x̣ x̣ad-sati·-yí.*

(Sitka-LOC#FOCUS thus#me-is-DEC boy-PERT me-is-SUB)

'I lived/used to live (Decessive Imperfective) in Sitka when I was a child (Subordinative Imperfective).'

(213) EN: *wé ʔá-· wušqa·ɢ-i yé#ʔáwé ƛe cu ʔá-· wǯiqa·ɢ.*

(that there-LOC 3.perched-DEC.ATTR place#FOCUS just again there-LOC 3.perched)

'[The eagle] has landed (Perfective) on the same spot where he had landed (Decessive Perfective) before.'

As explained in 8.2.1.2, such sentences pose no problem provided truth conditions are evaluated on specific situations rather than generic predications; this is the approach used here. For example, (209c) does not mean PAST^{N0}('weather is good') AND NEG(PRES^{N0}('weather is good')), but rather PAST^{N0}(S$_i$('weather is good')) AND NEG(PRES^{N0}(S$_i$('weather is good'))). In other words, (209c) means that a SPECIFIC SITUATION, namely an instance of good weather, was true in the past and is not true now. This instance of good weather, namely S$_i$('weather is good'), is false whether or not the weather is now nice, because if the weather has turned nice again, this constitutes a different instance of good weather, say S$_j$('weather is good').

The Decessive Perfective in (214a) is somewhat problematic. It is not the Decessive of a Involuntary Eventive verb, and yet it appears to behave semantically like the Decessive of a resultative Perfective rather than that of a past Perfective.

(214) N-L B420-1:

(214a) *ha da·#sáyá ˀé·ł'-x̣ has-ˀawułye·x̣-in?*

(well what#WHQ.FOCUS salt-PERT PL-3.made.3-DEC)

'And [do you know] what they made salt from (Decessive Resultative(?) Perfective)?'

(214b) *ha ƛe č'u#č'á·gʷ#quˀa#šágdé· ƛé·ł wuduskú·-wun ˀé·ł'*

(well just even#long.ago#however#I.suppose not one.has.come. to.know.3-DEC salt)

Long ago perhaps they were not familiar (Decessive Resultative Perfective) with salt.'

The speaker goes on to describe how they used to make salt by boiling down sea water. The Decessive Perfective in (214b) is a Decessive resultative Perfective, and I suspect that in (214a) is one too. My reasoning is as follows: resultative Perfectives are semantically equivalent to Stative Imperfectives, which, like all Imperfectives, can be interpreted as generalized-habituals. Thus, for example, (215b) can denote a specific instance (e.g. '(this chair) is made of wood') or a general truth (e.g. '(chairs) are made of wood'). This is confirmed by the fact that the adverb *č'a#ƛ̓ágʷ* 'always' is compatible with this sentence, as seen in (215c).

(215a) *O-S-ł-yex̣** (∅: ··-Process.) 'S makes O'

(215b) *ł'eʿwú-dáx̣ wuduλiyéx̣.*

(wood-ABL one.has.made.3)

'It is/was made (Perfective) of wood.'

(215c) *č'a#ƛágʷ ł'eʿwú-dáx̣ wuduλiyéx̣.*

(ipse#always wood-ABL one.has.made.3)

'It [e.g. this type of comb] is always made (Perfective) of wood.'

It thus seems possible that (214a) is to be interpreted something like '[seawater] was [as a rule] made into salt, but this is no longer the case'.[69] If this analysis of (214a) is correct, we must conclude that *has-ˀawuɬyeʻx̨í·n* is an example of a Decessive resultative Perfective. This would mean that resultative Perfectives may be formed not only from Involuntary Eventive verbs but from some Processive verbs that are semantically event (accomplishment) verbs. More data will be necessary to illuminate this point.

8.3.2.2. The Decessive Perfective

In 8.2.1.2, we concluded that the Perfective has two semantic subtypes: the resultative Perfective, RESULT*(S(x)), and the past Perfective, the combination $\text{PAST}^{N}(S(x))$ AND RESULT(S(x)). The Decessive of the resultative Perfective, as seen in the preceding section, can be treated like that of the other present-tense modes. The semantics of the Decessive of the past Perfective is more of a challenge. I will maintain that it can be expressed by something like the following formula:

(216) $\text{DEC}(\text{PAST}^{N}(S(x))$ IMPLIES $\text{PAST}^{N0}(\text{PAST}^{N1}(S(x)))$

AND $\text{PAST}^{N0}(\text{RESULT}(S(x)))$ AND $\text{NEG}(\text{PRES}^{N0}(\text{RESULT}(S(x)))$[70]

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[69] This example suggests, then, that the Perfectives of at least some event verbs like 'S makes O' are ambiguous, interpretable as either past+resultative Perfectives or simply as resultative Perfectives.

[70] By analogy with the other Decessive modes, it would appear that the first term in this formula should be $\text{PAST}^{N0}(\text{PAST}(S(y)))$ rather than simply $\text{PAST}^{N0}(S(y))$, but I am not sure that the more complex past-in-the-past term is either necessary or accurate; this will be further discussed in 2.2.4.

That is, the Decessive Perfective means that the situation as well as the state of affairs resulting from it was true in the past, but that the state of affairs resulting from the situation has ceased to be valid. Thus, for example, the Decessive Perfective form in (217) can be paraphrased 'I married her and was married to her, but now I'm not married to her [because she died]'.

(217) N-L D588-9:

ʔi-ƛá·#ʔáwé x̣ʷašá·-yin.

(your-mother#FOCUS I.married.3-DEC)

'I married (Decessive Perfective) your mother.

ƛé·x' dís-x̣ ʔi-sati·-yí#ʔáwé ʔi-náG yé·#wu·ni·.

(one moon-PERT you-is-SUB#FOCUS you-away.from thus#it.happened.

to.3)

When you were (Subordinative Imperfective) one month old she died (Perfective) leaving you alone.'

This same semantic representation is applicable in the following examples if we allow RESULT(S(x)) to mean something like THE EXPECTED RESULT OF S(x) rather than simply the state resulting from S(x).

(218) N-L E579-80:

ʔa·Gá· wé nagʷné·d yé·#x̣'ayaqá,

(then that preacher thus#3.says)

'Then the priest said (Imperfective),

'yé·#ʔi-yax̣ʷsaqa·-yín, 'ʔí#ɬ ɬíta·-x̣ ʔi·ši·-G."

(thus#you-I.said.to-DEC 'don't#not knife-PERT you.reach.ITER-OPT)

'I told you (Decessive Perfective), 'Don't touch (Prohibitive Iterative Imperfective) a knife.' [sc. but you did]'

Thus in (218), for example, the expected result of the priest's warning the newlywed husband not to touch a knife was that he would heed the warning, but this result was subsequently invalidated by the fact that the husband did touch a knife, and as a result he cut himself and brought himself bad luck. Likewise in (219), the mother roasted some salmon for her son to eat, expecting that he would eat it, but he didn't.

(219) N-L F448-9:

du-x̢'e-·s#áwé wé·t'ád x̢ʷaława·s-in#áwé

(3-mouth-for#FOCUS that.thing I.roasted.3-DEC#FOCUS)

'I roasted (Decessive Perfective) that [salmon] for him, but

ƛ̕éł du-tú-· ʔušgú ʔawux̢a·-yí.

(not 3-mind-LOC 3.is.pleasant 3.ate.3-SUB)

he doesn't want (Imperfective) to eat it (Subordinative Perfective).'

In (220), the land in question had subsequently been taken over by other people, so that it was de facto no longer in the speaker's possession.

(220) W-W-L A110 (Tongass Tlingit):

ʔax̢-ǯiʿ-d ʔaʿ-wuʿtiʿ-ÿin ƛ̕'adg.

(my-possession-PUNCT PART-3.gave.3-DEC land)

'She had given me some land.'

In (221), the speaker is speculating on the fact that there are Dēshītān both on the coast and in the interior, some with the same personal names. Here the import of the Decessive Perfective seems to be that these two groups had separated by migration long ago and thus are historically related to each other, but eventually their exact mutual relationship was forgotten, so that their erstwhile unity was disrupted. In this case, then, we may interpret RESULT(S(x)) as the socioculturally active relationship between the groups based on their consciousness of mutual separation.

(221) D-D1 A151-3:

ˀá#ˀáyá ˀa-da·-∅ yu·#tuxatáng-i#ˀáyá,

(then#FOCUS its-periphery-LOC repeatedly#I.am.thinking-SUB#FOCUS)

'You know, I've been thinking about them, [more lit. 'As for that, as I have been thinking (Subordinative Imperfective) about it,']

hás, čˀu#čˀá·gu-dáx̣ ˀá-· yé·#s-ti·-yí,

(them, even#long.ago-ABL there-LOC thus#PL-is-SUB

if they've been living there a long time,

has-du-ˀi·n#gíyá wú·š-dáx̣ ha·-wusda·G-í·n.

(PL-3-with#DUBIT.FOCUS RECIP-ABL we-migrated-DEC)

maybe we separated and migrated (Decessive Perfective) from them.'

Example (222) affords the only example in the corpus of a Subordinative Decessive form (with *ÿí·ÿi‘* following the Subordinative form). The trail resulting from dragging the canoe over the glacier was soon thereafter destroyed when the glacier was sundered along this path; thus the Decessive indicates the invalidation of the expected result of the action.

(222) N-L B156-7:

ˀáǯ#áwé yagʷ-de·yi yú· duwasá·gʷ

(therefore#FOCUS canoe-trail thus one.calls.3)

'That is why it is called (Imperfective) Yakwdēyí [Canoe-trail],

wé sítʼ ka-nax̣ ˀawusxá·tʼ-i yí·yi-ǯ.

(that glacier surface-PERL 3.dragged.3-SUB DEC-ERG) because of the fact that he dragged (Decessive Subordinative Perfective) [the canoe] over the glacier.'

In all these examples, then, the Decessive seems to add a connotation that could be roughly translated as '...but things have since changed' or '...but in vain'.

Another interpretation of the Decessive Perfective, according to WS, is the implication that the situation happened long in the past, and the speaker has just recalled it, as in (223).

(223) WS: *tawé·#ˀáwé yá·-x' x̣ʷaǯa·ɢ-ín*

(mountain.goat#FOCUS here-LOC I.killed.3-DEC)

'I killed a mountain goat here [long ago; I just recalled having killed it].'

Examples like this can be reconciled with the interpretation drawn from the previous examples in the following way. One type of state that can be expected to result from a past situation is the persistence of evidence that it occurred. This evidence can be material (a product, trace, or aftermath) or mental (an active memory). It would thus seem quite natural for the Decessive Perfective to imply that all traces of a previous situation, including the memory of it, have eroded over time.

The crucial factor in the semantic contrast between the Assertive and Decessive Perfective seems to be the component NEG(RESULT(S(x))). As the above examples show, the meaning of RESULT(S(x)) needs to be evaluated in the light of this contrast. As we saw in section 8.2.1.2, for Involuntary Eventive verbs, S(x) is a BECOME predicate, say BECOME(α(x)), and RESULT(S(x)) is equivalent to RESULT*(BECOME(α(x))), which refers to the state that results from the transition to α(x), that is, simply to α(x). Let us now consider what

RESULT(S(x)) might mean if S(x) contains a DO predicate. According to Dowty (1979), all process (activity) verbs and some event (accomplishment) verbs contain such a predicate. We might speculate, then, that RESULT(DO(α(x))) is responsible for the meaning observed in examples (218)-(223); that is, it refers to the expected results of performing an action; these results may not be a simple state, but rather a complex web of interdependent consequences.[71]

The Decessive of the past Perfective is more complex than that of the non-past modes because the semantic structure of the Decessive interacts with both possible meanings of the Perfective: PAST(S(x)) and RESULT(S(x)). The temporal structure I posit for the Decessive past Perfective is shown in Figure 61. Diagram (a) is to be interpreted as follows. Within N(y), an interval in the past, S(x) had transpired and RESULT*(S(x)), the state of affairs expected to result from S(x), was true; after N(y), however, conditions changed in such a way as to invalidate RESULT(S(x)), so that it is not true at present. This diagram can perhaps be linearized as shown in (b). The semantic structure of the Decessive Perfective thus supports the claim that ALL Perfectives have a RESULT(S(x)) component. Resultative Perfectives have only this component, whereas past Perfectives have this component in addition to a PAST(S(x)) component.

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[71] The present data base, however, does not suffice to work out a detailed model of such an explanation. In particular, we would like to explore the possibility that event verbs, or some subset of them, can have a Decessive resultative Perfective interpretation in addition to the Decessive past Perfective interpretation illustrated above. Such a possibility is suggested by example (214a) in 8.3.2.1, but more text examples will be needed to elucidate its semantics.

(a) N_1 N_0

--------(---------------------)---------------------(----)--------

{PAST(S(x)}

{RESULT(S(x))}{NEG(RESULT(S(x))}

(b) N_2 N_1 N_0

--------(------)(--------------------)---------------------(----)--------

{S(x)}{RESULT(S(x))}{NEG(RESULT(S(x))}

Figure 61. The Decessive past Perfective

Note, moreover, that if the basic meaning of the Perfective were taken to be RESULT(S(x)), and if PAST(S(x)) were said to follow by conventional implicature from RESULT(S(x)) as mentioned in 8.2.1.2, then it would easy to derive the meaning of the Decessive Perfective: the terms PAST^{N0}(RESULT(S(x))) AND NEG(PRES^{N0}(RESULT(S(x)))) can be obtained by substituting RESULT(S(x)) for f(S(x)) in (1), and $\text{PAST}^{N0(PAST}$N1(S(x))) follows by implicature from PAST^{N0}(RESULT(S(x))). But note that NEG(PRES^{N0}(RESULT(S(x)))) does not similarly imply NEG(PAST^{N0}(S(x))). That is, the fact that the situation had transpired in the past is implied by the state of affairs that came into being as a result of it; on the other hand, the fact that this state of affairs is no longer in evidence does not imply that the situation has not transpired. It is clearly impossible for one and the same situation to have transpired and not to have transpired.

As pointed out in 8.2.1.2, however, the non-Decessive Negative past Perfective clearly does imply NEG(PAST^{N}(S(x))), that is, that the situation did not transpire. Therefore if we take RESULT(S(x)) to be the basic meaning of the Perfective, the conventional implicature by which the PAST meaning is adduced will have to have something like the following effect:

(224) RESULT(S(x)) implies PAST^{Ni}(S(x)), and NEG(RESULT(S(x)) implies NEG(PAST^{Ni}(S(x))) unless PAST^{Ni+1}(S(x)) is true.

8.3.2.3. The Decessive Future and Potential

The Decessives of the future modes (Future and Potential) are semantically very similar to those of the present-tense modes. The Decessive Future is describable by formula (225), and can be represented by the diagram in Figure 62.

(225) DEC(FUT^{N}(S(x))) = PAST^{N0}(FUT^{N1}(S(x)) AND NEG(FUT^{N0}(S(x)))

N_1 N_0

--------(---------------)-------------------(----)--------

{FUT(S(x))}{NEG(FUT(S(x))}

Figure 62. The Decessive Future

This means that S(x) was going to transpire at some time in the past, but is no longer going to transpire. Note that, as the diagram indicates, it is implicit that S(x) did not transpire before the present time: there is no time interval between FUT(S(x)) and NEG(FUT(S(x)), which means that there is no place before N_0 where FUT(S(x)) can be situated.

Here, as in the Future Circumstantial modes, we find tense embedded within tense. Sentence (226c), for example, implies that at some time in the past, the speaker could truthfully have said (226b), but at present, (226b) is no longer valid.

(226a) *O-S-∅-ši•·* (ga: ’-Process.) ‘S sings O’ (with *ˀad-* as object, ‘S sings’)

(226b) *ke‘#ˀad-kuqaši·* (Future) ‘I will sing, am going to sing.’

(226c) *ke‘#ˀad-kuqaši·ỹín* (Decessive Future) ‘I was going to sing.’

(227) EN: *guɢagu·d-ín#áwé, ha de·#sgʷaǯ čʼá·gʷ wu·gu·d.*

(3.will.go-DEC#FOCUS, well already#as.it.turns.out long.ago. 3.went)

‘He was going to go (Decessive Future); he could have gone (Perfective) long ago (if he had gotten his act together).’[72]

The Decessive Future regularly translates in English as the Future-in-the-past of the ‘...was going to V’ variety. In fact, it would seem that this English Future-in-the-past has the same semantic structure as the first proposition in (225). The second proposition of (225) follows by implicature from Grice’s maxim of quantity: if the situation which was going to transpire at some time in the past were still going to occur, then we would use the ordinary Future in English instead of the Future-in-the-past; therefore the Future-in-the-past implies that the situation is no longer going to transpire. Thus the Decessive Future and the English Future-in-the-past are for practical purposes semantically identical.

The semantic structure of the Decessive Potential is the exact analog of that of the Decessive Future:

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[72] For the construction with *de·#sgʷaǯ*, see below.

$$(228)\ \mathrm{DEC}(\mathrm{POT}^{R}(\mathrm{FUT}^{N}(S(x)))) = \mathrm{PAST}^{N0}(\mathrm{POT}^{R}(\mathrm{FUT}(S(x))) \text{ AND } \mathrm{NEG}(\mathrm{POT}^{R}(\mathrm{FUT}^{N0}(S(x)))$$

The Decessive Potential thus means that it was possible at some time in the past that S(x) would transpire, but now it is no longer possible.[73] It thus translates '...might/would have V-ed (but didn't)'.

(229) EN: *gʷáł de š-ˀux̣daǯa·ɢ-ín*.

(perhaps already REFL-3.may.kill-DEC)

'He might have committed suicide (Decessive Potential) already [if things had been otherwise].'

(230) N-L D101:

ˀa·dú·#sá-gʷšé-gí yanax̣#ˀi·ɢ#ˀašux̣sagu·d-ín#gí?

(who#WHQ-I.wonder-INTERROG along.earth#to.beach#3.may.lead.3-DEC#INTERROG)

'Who would have brought him (Decessive Potential) back down to us?' [more lit. 'Who would have led him down from the woods along the earth.' This refers to the metaphor where dying is equated with going up into the woods and reincarnation with coming back down to the beach.]

(231) D-D1 J343:

ƛéł yé·#nɢʷane·-yí·n#ágwé.

(not thus#it.may.happen.to.3-DEC#INTERROG.FOCUS)

'This wouldn't have happened to him, don't you agree?'

The Decessive Potential is perhaps most frequently used in the apodosis (main clause) of a hypothetical conditional sentence. The verb of the protasis (dependent clause) is Decessive Imperfective or Decessive Perfective, and either the protasis contains the clitic *#ʔú'š*, as in (232a) and (233a), or the Attributive form of the Decessive verb is followed by *ká-d* in the protasis, as in (10)-(11).

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[73] Note that the operators NEG and POT here occur in the opposite order than in the Negative Potential; the reverse order would clearly give the wrong semantic results here. This seems to be the only example of variability in the order of semantic operators in the Tlingit system.

(232) N-L D390-1:

(232a) *'ƛéł#ʔú·š ʔax̣-tu-wá-· ʔušgú·-wun,*

(not#HYPOTH my-mind-face-LOC 3.is.pleasant-DEC)

'If I didn't like her (Decessive Imperfective)

(232b) *ƛéł du-ʔi·x̣ ʔu·nqaní·g-un.*

(not 3-PERT I.may.do.something.objectionable-DEC)

I wouldn't have bothered her (Decessive Potential).'

(233) D-D1 J376-7:

(233a) *č̓a#ł#yé·#ʔú·š#gé wuti·-yí·n*

(ipse#not thus#HYPOTH#INTERROG 3.became-DEC)

'If only things hadn't happened this way (Decessive Perfective),

(233b) *ʔa·dé·#ʔú·š#gé n*ɢʷ*ati·-yi yé de.*

(thus#HYPOTH#INTERROG 3.may.be(come)-DEC.ATTR way already)

how would it have been? [lit. '(one wonders what is) the way it would have been/become (Decessive Potential) already.']

(233c) *č̓u#ƛe ʔád-x̣#áwé nax̣ʷsati·-yi ʔád#áwé yúʔá,*

(even#just thing-PERT#FOCUS 3.may.be(come)-DEC.ARRT thing#FOCUS QUOT)

It would have really been something, they say. [lit. 'it is something that really would have been something (Decessive Potential), they say.']

(233d) *yú·#ʔáwé duƛá·gʷ#x̣á.*

(thus#FOCUS one.tells.the.fable.of.3#you.see)

That's how it's told (Imperfective), you see.'

(234) D-D1 J414-5:

*ʔa·dé·#ʔú·š#gé n*ɢʷ*ati·-yi yé#gé*

(how#HYPOTH#INTERROG 3.may.be(come)-DEC.ATTR way#INTERROG)

'How would it have been (Decessive Potential)

č̓u#mistake ł#yu·#ʔu·sne·g-i ká-d wé ša·wád#χá.

(even#mistake not#repeatedly#3.does.to.3.ITER-DEC.ATTR surface-PUNCT that woman#you.see)

if the woman hadn't made a mistake (Negative Decessive Iterative Imperfective), you see.'

(235) D-D2 BB194:

č̓a#ł#ye·#χʷagu·d-i ká-d#quʔa·#ʔáwé

(ipse#not#out.of.boat#I.went-DEC.ATTR surface-PUNCT#however#FOCUS)

'But if I had not arrived (Negative Decessive Imperfective),

ʔaχ-dasé·gu tú·-d ɢʷ*axi·x-in#χá·.*

(my-breath inside-PUNCT 3.may.move.about.through.space-DEC#you.see)

it would have remained in my breath, you see.'

8.4. Status

The formal system distinguishes between two statuses: Realis and Irrealis. Of these, Realis is unmarked. The Irrealis is formed with the irrealis prefix *u-* and the Non-assertive/Irrealis stem variant. Irrealis status is associated with a small set of particles and clitics that indicate either negativity or improbability:

ƛ̓é·ł/ƛ̓éł ~ ł[74] 'not'

gʷáł 'maybe, perhaps'

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[74] The variant *ł* is usual in dependent clauses and obligatory in Gerundive clauses.

#gí-DEM ‘evidently, apparently, I guess’[75]

The Irrealis form is obligatory with negative verbs, but for some speakers it is optional elsewhere.

Example (236) illustrates the semantic effects of a number of important clitics and particles that convey modal notions; note that these occur only with Declarative mode clauses. Of these, (236a)-(236e) occur with Realis verb forms and (236f)-(236h) occur with Irrealis verb forms.

(236) Theme *O-S-∅-ǯaɢ** (0: Event.) ‘S kills O’

(236a) *ca‘ ˀa‘waǯáɢ*

(seal 3.killed.3)

‘He/she killed a seal’

(236b) *ca‘#ˀágí ˀa‘waǯáɢ*

(seal#INTERROG 3.killed.3)

‘Did he/she kill a seal?’ [yes/no question]

(236c) *ca‘#ˀásí ˀa‘waǯáɢ*

(seal#it.must.be 3.killed.3)

‘Oh, so he/she killed a seal’ [indicates that the speaker has reached a conclusion or received information about which he is relatively certain]

(236d) *ca‘#gʷšé ˀa‘waǯáɢ*

(seal#eh? 3.killed.3)

‘He/she killed a seal?’; ‘Do you suppose he/she killed a seal?’; ‘I guess he/she killed a seal’ [either asks for confirmation or indicates the need for confirmation]

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[75] Some speakers can also use Realis forms with *gʷáł* and *#gí-DEM*.

(236e) *caʻ#šágdé· ʔaʻwaǯá*ɢ

(seal#maybe 3.killed.3)

'Maybe he/she killed a seal'; 'He/she probably killed a seal' [indicates uncertainty but implies likelihood]

(236f) *caʻ#gíwé ʔawuǯaʻ*ɢ

(seal#INTERROG.FOCUS 3.killed.3)

'I guess/presume he/she killed a seal'; 'Maybe/apparently he/she killed a seal' [indicates presumption, inference, or secondhand information about which the speaker is uncertain]

(236g) *gʷáɬ caʻ ʔawuǯaʻ*ɢ

(perhaps seal 3.killed.3)

'Maybe he/she killed a seal' [indicates uncertainty and does not imply likelihood]

(236h) *ƛé·ɬ caʻ ʔawuǯaʻ*ɢ

(not seal 3.killed.3)

'He/she didn't kill a seal' [negated sentence]

Of particular interest here is the fact that some enclitics and particles that indicate uncertainty or presumption on the part of the speaker occur with Irrealis forms, whereas others that are similar in meaning occur with Realis forms. Thus, for example, most speakers would translate both (236e) and (236g) as 'Maybe he/she killed a seal'. However, (236f)-(236g) seem to imply that the speaker is relatively doubtful or at least diffident about the truthfulness of the proposition expressed by the sentence, whereas (236c)-(236e) seem to imply that the speaker considers the proposition likely.

(237) N-L F383:

c̓u#ƛe gú·n#gíyú yé·#ʔuɫi yúʔá.

(even#just gold#INTERROG.FOCUS thus#3.is QUOT)

'Apparently it was (Irrealis Stative Imperfective) gold, they say.'

(238) N-L F161:

gʷáł wé ǯik'a·-tín#gíwé ya·#ʔu·nałǯik'.

(perhaps that carrying.board-with#INTERROG.FOCUS along#3.is. carrying.3.on.back)

'Perhaps she was carrying him on her back (Irrealis Progressive Imperfective) in a carrying board.'

(239) N-L D226:

gʷáł nás'g tá·gʷ, da·x'u·n tá·gʷ#gíwé ʔax̣-šuká-d qu·sí.

(perhaps three winter, four winter#INTERROG.FOCUS my-place.before-PUNCT 3.exists)

'He was (Irrealis Stative Imperfective) maybe about three or four years older than I was.'

The principle governing the manifestation of status therefore seems to be RELATIVE PROXIMITY OF THE WORLD CONTAINING THE SITUATION IN QUESTION TO THE REAL WORLD. Let us posit a reality-window R which contains situations which the speaker considers likely. Within this window are REALIS SITUATIONS, which are considered relatively likely; outside it are IRREALIS SITUATIONS, which are considered relatively unlikely. A sentence expressing a realis situation may thus be designated $\mathrm{REAL}^{R}(f(S(x)))$, and an irrealis situation $\mathrm{IRREAL}^{R}(f(S(x)))$.

How can we account for the fact that negative sentences are treated as irrealis in Tlingit? One plausible answer is that in evaluating the status of negative sentences, the language considers not the status of the negative situation, but that of the corresponding affirmative situation.[76] If the negative situation is realis, then the corresponding affirmative situation must be irrealis.

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[76] A parallel that comes to mind here is the way negative questions are answered in English. In the exchange 'Haven't you eaten?'--'No', the answer 'no' is based on the evaluation of the affirmative situation corresponding to the negative sentence, rather than on the evaluation of the negative situation itself.

(240) REAL^R(NEG(f(S(x)))) IMPLIES IRREAL^R(f(S(x))).

In (236h), for example, the speaker affirms as true the situation where the seal is not killed. This means that the situation where the seal is killed is not true, and therefore that this situation is not within the reality-window.

In 8.2.1.5 and 8.3.1, we introduced the status operator POT as a component of the Potential mode and perhaps also the Optative mode. What relationship does this operator bear to IRREAL? The answer to this question is suggested by comparing the following sentences:

(241) Theme *S-∅-ta•‘* (na: Pos. ’-Process.) ‘S sleeps’

(241a) *gʷáł ˀutá* (Irrealis Positional Imperfective) ‘maybe he/she is sleeping’

(241b) *gʷáł guGata‘* (Irrealis Future) ‘maybe he/she will sleep’

(241c) *naGʷa‘ta‘* (Potential) ‘he/she may/might sleep’

There does not seem to be any appreciable semantic difference between (241b) and (241c); note also that the difference between the English glosses of these two sentences is similarly hard to isolate. I tentatively conclude, then, that situations characterizable as POT^R(f(S(x))) are a subset of situations characterizable as IRREAL^R(f(S(x))); that is, that IRREAL subsumes POT.[77]

Support for this conclusion is also found in the morphology: the irrealis prefix *u-* is part of the inflectional string of the Potential mode. And in fact, the irrealis prefix occurs with all modes that are inherently irrealis, i.e. modes which according to the present analysis have as part of their meaning the operators NEG or POT. Such are the Potential, the Admonitive, which is inherently negative, and the Prohibitive-Optative, of which the Prohibitive is inherently negative, and the Optative is here-claimed to contain the operator POT (see 8.3.1).

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[77] It may thus be possible to create a kind of taxonomy of irrealis categories, POT being just one of them. However, such a taxonomy is outside the scope of this work.

8.5. Dependent clause forms

Two types of dependent clause are formally distinguished from the independent clause forms of verbs: Attributive clauses, Subordinative clauses, and Gerundive clauses (see 6.4). The morphosyntactic properties of these clause types are summed up in Figure 63.

Dependent clause type	**Inflection for deictically indexed schetic categories**	**Inflection for subject**
Attributive	yes	yes
Subordinative		
adjunct	yes	yes
complement	yes/no	yes
Gerundive	no	no

Figure 63. Morphosyntactic properties of clause types

These dependent clause forms are relevant to the semantics of the schetic system only insofar as certain dependent clause types are not inflected for deictically indexed schetic categories, namely a subgroup of Subordinative complement clauses and Gerundive verbal nouns. These clause types occur only in the Imperfective and

Perfective modes, where these modes retain their aspectual connotation but lack tense reference. Note also that these clause types can be negated.

8.5.1. Subordinative forms

Subordinative forms are characterized by the suffix *-i'* (except before the postposition *-x*, where this suffix is omitted), lack of the I-component of the classifier, and the non-Assertive stem form. Unlike Gerundives, Subordinatives are fully inflected for subject and object. They function syntactically either as complement clauses or, with the addition of postpositions, as subordinate clauses that function as adjunct phrases, especially temporal adverbials.

As indicated above, Subordinative clauses can be divided into two types on morphosyntactic grounds. Subordinative complement clauses occur as arguments for which verb themes are subcategorized. With most themes, Subordinative complement clauses occur only in the Imperfective and Perfective modes; here the tense distinction is neutralized, so that the semantic difference between these modes is purely aspectual. We will call these Subordinative non-finite complement clauses. A few themes, however, take Subordinative finite complement clauses, which occur in the Imperfective, Perfective, Future, and Habitual modes, as do Subordinative adjunct clauses; here, tense and status is retained.

8.5.1.1. Subordinative adjunct clauses

Subordinative adjunct clauses occur as objects of the following postpositions:

Locative *-x'* 'when...; while...'

Ablative *-dáx̣* ~ *-dx̣* 'since...'

Allative *-deʻ* 'until...'

Perlative *-náx̣* 'throughout the time when...'

Comitative *-tiʻn* 'just as...; as soon as...'

Ergative -*ǯ* 'because...'

(242) N-L F257:

č'u#yé·#gʷsagé·nk'-i-dáx̣

(even#thus#3.is.small-SUB-ABL)

'ever since he was a child (Subordinative Stative Imperfective with *-dáx̣*)'

(243) N-L D40-1:

kú·x#gʷšé·-wé ƛe ʔasté·x̣#ni·ǯ, ƛe č'as#hí·n-x̣ wusti·-yí-de.

(rice#I.guess.FOCUSjust3.is.boiling.3#HAB.AUX,justonly#water-PERT3.has. become-SUB-ALL)

'She would boil rice until it was just liquid (Subordinative Perfective with *-deʻ*).'

(244) D-D1 A36-7:

č'u#ƛe ʔi·ɢ-dáx̣ ya·#wunadé·n-i-tín#áwé, ke·#ʔat'a·ʔix'ǯ,

(even#just beach-ABL along-3.is.flowing.doubling.back-SUB-with#FOCUS up#3.calls. back.to.3-ITER)

'As soon as the tide started coming up (Subordinative Progressive Imperfective with *-tiʻn*) he would cry out (Iterative Imperfective),'

(245) N-L B179-80:

ha wé λe·d qá·-x̣ has-sati·-yí-ǯ#quʔa#ʔáwé ƛé·ɬ has-du-da·-∅ ya·#qušu·sgé.

(well that white man-PERT PL-is-SUB-ERG#however#FOCUS not PL-3-periphery-LOC mentally#comprehension.is)

'But because they are (Subordinative Stative Imperfective with -*ǯ*) white people, they do not understand (Negative Stative Imperfective).'

Subordinative adjunct clauses very frequently occur without an overt postposition; such forms may be assumed to end with the zero allomorph of the postposition *-x'*.[78]

(246) N-L B208-9:

ʔáwé wé yí·s ʔa· yán híd ʔá-· ya·#nduɬyéx̣-i#ʔáwé wé· ʔax̣-ʔa·d ʔá-· quwʒiti·.

(FOCUS that new one hemlock house there-LOC along#one.is. building.3-SUB#FOCUS that my-paternal.aunt there-LOC 3.was.born.)

'Now when the new Hemlock House was being built (Subordinative Progressive Imperfective), my aunt was born (Perfective) there.'

(247) N-L B333:

ƛé·x' tá·gʷ šuwuxi·x-í#ʔáwé da·g#gax̣duɬʔá·t.

(one year 3.has.elapsed-SUB#FOCUS out#one.will.take.plural.3)

'After one year [has elapsed] (Subordinative Perfective) they will bring them out (Future).'

(248) N-L B235-6:

qúnáx̣ yé·#ʔáwé yi·-x̣'aɬici·n, yanye·đí yád-x'-i-x̣ yi·-sati·-yí.

(really thus#FOCUS you.(pl.)-are expensive, Yanyēdí child-PL-POSS-PERT you.(pl.)-is-SUB)

'You are truly valuable (Stative Imperfective) you who are (Subordinative Stative Imperfective) the Children of the Yanyēdí.'

8.5.1.2. Subordinative complement clauses

Finite complement clauses occur as objects or postpositional objects of themes predicating knowledge of the situation denoted by the object, such as the following:

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[78] The Locative postposition *-x'* has the fast-speech allomorphs *-'* after a stem of the shape *CV́* and zero after a stigmatically marked vowel, e.g. *ʔa-káx'* or *ʔa-ká'* 'on it', *ʔa-da'-x'* or *ʔa-da'* 'around it', *ʔa-ʔi'tí(·)-x'* or *ʔa-ʔi'tí(·)* 'in the aftermath of it'.

_O-S-s-ku_*‘ (Ø: Invol. Event.) ‘S knows O’

_MANNER O-u-S-ǯi_*‘ (na: ÿ-Stat.) ‘S thinks (so) of O’

_PO-x̣ O-u-S-ǯi_*‘ (na: ÿ-Stat.) ‘S thinks, considers O (to be) PO’

_PO-k’ ʔa-u-S-∅-hin_* (Ø: Process.) ‘S comes to believe (in) PO’; (Ø/na: ‘-Process.) ‘S believes (in) PO’

_O-ka-S-∅-nig_*(na: ‘-Process., invariant stem) ‘S tells O; with _PO-n_ ‘S tells O to PO’

(249) N-L D393:

ƛéł#quʔáyá x̣ʷsakú du-ǯiyís kaxí·ł’ yé·#gʷqasani·-yí.

(not#however.FOCUS I.have.realized.3 3-for trouble thus#I.will. make.3-SUB)

‘But I didn’t realize (Resultative Perfective) that I would make trouble (Subordinative Future) for him.’

(250) N-L D1211-2:

ƛéł ʔa-yáx̣ ʔax̣-tu-wá-· ʔułi ƛax̣ has-du-té·x̣’ tú·-dáx̣ has-ʔa-kagʷGaʔa·G-ú.

(not it-like my-mind-face-LOC 3.is very.much PL-3-heart inside-ABL PL 3-3.will.try-SUB)

‘It doesn’t seem to me (Stative Imperfective) that they will try (Subordinative Future) with their whole hearts.’

(251) D-D1 C406-7

ʔá-· yax̣#kawdayá·-x̣#áyú duwaǯi· hú#qu.a.[79]

(there-LOC turning.over#3.moved-PERT#FOCUS one.opines.3 him/her#however)

‘But they thought (Stative Imperfective) her mind had snapped (Subordinative Perfective).’

(252) Naish 1966:4.214, p. 60:

ke·#gux̣łaha·š-x̣ x̣ʷa·ǯi·

(up#3.will.float-PERT I.opine.3)

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[79] Note the lengthening of the stem vowel (CV́ > CV́·-) before the postposition.

'I thought (Stative Imperfective) it would float (Subordinative Future)'

As examples (251) and (252) illustrate, the Subordinative irregularly occurs without the suffix *-i'* before the postposition *-x̨*.

Non-finite complement clauses occur as objects of Stative themes such as the following

O-∅-k'é·(ga: ÿ-Stat.) 'O is good, fine'; with *PO-x'* 'O is good for PO'; with *NO-tuwá'* 'NO likes, approves of O'

O-s-gú· (ga: ÿ-Stat.) 'O is pleasant'; with *NO-tuwá'* 'NO wants, likes O'

O-ł-ʒí· (ga: root-Stat.) 'O is difficult'; with *PO-x'* 'O is difficult for PO'

*MANNER O-∅-ti**'(na: ÿ-Stat.) 'O is (so)'; with *NO-tuwá'* 'O appears (so) to NO'

*O-u-S-∅-ÿa**'(na: ·-Stat.) 'S resembles O'

as well as of a few Processive themes such as

O-ka-u-S-∅-ʔaɢ^{w}*(na: '-Process., invariant stem) 'S tries O'

and as postpositional objects or nominal objects such as

PO-x' ʔa-ka-ŭ-S-ł+D-x̨í·ƛ' (ga: root-Stat.) 'S fears PO'

*ʔa-S-∅+D-ši**· (Motion, with aspectual derivational string *PO-d* (0)) 'S hopes (for) PO'

O-se-∅-x'aɢ^{w}*(Motion, with aspectual derivational string *NO-kád* (0)) 'O forgets NO'

and as objects of indeclinable expressions such as

gunałčí·š 'thank you (for...)'

quštuyáx̣ ‘so what; I don’t care; it doesn’t matter (if...)’

hú·č’ ‘no longer’ [lit. ‘that’s all; there’s no more’]

Examples of these constructions follow.

(253) EN: *du-tu-wá-· sigú· ʔawux̣a·-yí.*[80]

(3-mind-face-LOC 3.is.pleasant 3.has.eaten.3-SUB)

‘He wants (Stative Imperfective) to eat it (Subordinative Perfective).’

(254) N-L C992:

has-du-tu·-wú yak’é· qux̣#wutudaʔa·d-í.

(PL-3-mind-POSS 3.is.good back#we.came-SUB)

‘They were glad (Stative Imperfective) we returned (Subordinative Perfective).’

(255) N-L D1207:

yat’i·x’-i ʔád#áwé cu qú-· duɬí·w-u.

(3.is.hard-ATTR thing#FOCUS again one-LOC one.teaches.3-SUB)

‘It’s a difficult (Attributive Stative Imperfective) thing to teach (Subordinative Imperfective).’

(256) N-L F307:

*ʔa-ká-d se·wax’á*G^{w} *wé du-ǯin-tá·-d ʔakawuɬɬú·x’-u.*

(its-surface-PUNCT3’s.memory.shifted that 3-hand-inside.surface-PUNCT3.directed.urine.flow-SUB)

‘He forgot (Perfective) to urinate (Subordinative Perfective) on his palms.’

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[80] This theme almost always occurs with Subordinative Perfective complement clauses, although WS and EN both maintain that both Perfective and Imperfective forms are possible. EN gives the following translations, which may reflect the aspectual contrast in an imprecise way.
(a) *du-tu-wá-· sigú· ʔax̣a·-yí.*
(3-mind-face-LOC 3.is.pleasant 3.eats.3-SUB)
‘He likes (Stative Imperfective) to eat it (Subordinative Imperfective).’
(b) *č’a#ƛág*^{w} *du-tu-wá-· sigú· ʔax̣a·-yí.*
(ipse#always 3-mind-face-LOC 3.is.pleasant 3.eats.3-SUB)
‘He always wants/likes to eat it.’

(257) N-L F83:

ˀaku·ˀa·ɢʷ#gíwé ˀa-wa·ɢ ˀa-·x̣ ke·#ˀašakawuƛe·ɢ-ú.

(3.is.trying.3#INTERROG.FOCUS its-eye there-ABL up#3.seized. plural.3-SUB)

'It was apparently trying (Imperfective) to take [the baby's] eyes out (Subordinative Perfective).'

(258) N-L B352-3:

ˀáǯ#áyá č̓a#x̣á·-ǯ#cú ˀá-d ˀax̣ʷdiši· ha·-ˀi·n ƛé·x' dis ˀi-wuye·x̣-i.

(therefore#FOCUS ipse#me-ERG#also it-PUNCT I.hope us-with one moon you-have.been.absent-SUB)

'So I too hope (Resultative Perfective) that you can go away with us (Subordinative Perfective) for a month.'

(259) N-L B342:

quštuyáx̣ ƛe qú·-x' č̓a#ˀa·dú·#sá wá·#sá wuni·-yí.

(it.doesn't.matter just one-LOC ipse#who#WHQ how#WHQ 3.has.happened-SUB)

'It doesn't matter to people if something happens (Subordinative Perfective) to someone.'

(260) N-L D71-2:

ƛe hú·č̓ ˀa·dú·#sá ˀa-wuqé·-yi wé ˀax̣-x̣'é-· ˀadułł'a·-yí.

(just that's.all who#WHQ 3-3.has.paid-SUB that my-mouth-LOC one-suckles-SUB)

'They didn't have to pay anyone to breast-feed me any more.' (lit. 'That was the end of paying (Subordinative Perfective) someone to suckle me (Subordinative Imperfective).')

The following indeclinable expression occurs with both non-finite and finite complement clauses.

ƛé·ł (ˀu)nałí/-łé (with non-finite complement clause) 'almost';

(with Future complement clause) 'before long, soon' [lit. 'it is not far (that...)']

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(261) EN: *ƛéł ʔunałí ʔawux̣a·-yí.*[81]

(not 3.is.far 3.has.eaten.3-SUB)

He almost ate it (Subordinative Perfective).

(262) D-D1 K32-3:

*de ƛéł nałé#ʔáwé ǯigax̣duna·*ɢ-í.

(already not 3.is.far#FOCUS one.will.let.3.go-SUB)

'It was not long (Stative Imperfective) before she would be released (Subordinative Future).'

8.5.2. Gerundive forms

Gerundive forms are characterized by lack of the I-component of the classifier, and the non-Assertive stem form; they are similar to the Subordinative forms, but lack the suffix *-iʻ*. Like Subordinative complement clauses, Gerundives occur only in the Imperfective and Perfective modes; here again, the semantic contrast between these modes is purely aspectual. Gerundives take no subjects and only generic objects; Gerundive VPs function as alienable nouns. Like other alienable nouns, they may be possessed; the possessor is interpreted semantically as the subject, as seen in (263d) and (264b).

(263a) Theme *O-S-s-ku•ʻ* (∅: Invol. Event.) 'S comes to know, realizes O'

(263b) *x̣ʷasikú·* 'I know it'

(263c) *ʔad-wuskú* (thing-knowing) 'knowledge'

(263d) *ʔax̣-ʔad-wuskuʻ-wú·* (my thing-knowing-POSS) 'my knowledge'

(264a) *łingíd-x̣ satí* (person-PERT being) 'being a Tlingit, Tlingit identity'

(264b) *haʻ-łingíd-x̣ satiʻ-ÿí·* (our-person-PERT being-POSS) 'our Tlingit identity'

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[81] Compare the less acceptable ??*ƛéł ʔunałí ʔax̣a·-yí* (Subordinative Imperfective).

Note also that Gerundive forms of negative verbs are perfectly permissible.

(265a) Themes *O-∅-k’é·* (ga: ÿ-Stat.) ‘O is good’; *NEG O-š-k’é·* (ga: ÿ-Stat.) ‘O is bad’.

(265b) *k’é* (being-good)‘goodness’

(265c) *ł#ʔušk’é* (not#being.good) ‘evil, sin’

(265d) *ʔax̣-ł#ʔušk’e‘-ÿí·* (my-not#being.good-POSS) ‘my sin’

Gerundives, like other nouns, may be followed by the modifier *ÿí·ÿi‘* ‘former’, as seen in (266a). It would be possible to call these Decessive Gerundives, since they are formally parallel to Decessive Subordinatives, such as that in (266b). Since this construction is nominal, however, it is not properly speaking part of the system of verbal inflectional categories.

(266a) *ha‘-łingíd-x̣ sati‘-ÿí· ÿí·ÿi‘*

(our-person-PERT being-POSS former)

(possessed Gerundive with *ÿí·ÿi‘*)‘our former Tlingit identity’

(266b) *łingíd-x̣ ha‘-sati‘-ÿí· ÿí·ÿi‘*

(person-PERT us-is-SUB former)

(Decessive Subordinative) ‘when/that we used to be Tlingits’

Gerundives may occur instead of Subordinative non-finite complement clauses as objects in the constructions described in 8.5.1, as seen in (267). They are by no means restricted to such constructions, however, as shown by (268) and (269).

(267) D-D1 A110-2:

cu šayadihen-i ʔa·#quʔa·#ʔáyá ʔá-· ʔakawƛix̣í·ƛ’ yá sít’ tayi·-dé· wulha·š.

(again 3.are.many-ATTR one#however#FOCUS it-LOC 3.is.afraid this glacier underneath-ALL floating)

‘But many of them were afraid (Stative Imperfective) to float (Gerundive Perfective) under the glacier.’

(268) N-L D249:

č̓u#ƛe ya·#ʔad-yanasnáG yá·náx̣#áwé ya·#nx̣agúd.

(even#just along#thing-chasing more.than#FOCUS along#I.am.walking)

'I was walking (Progressive Imperfective) faster than (a person) chasing an animal (Gerundive Progressive Imperfective).'

(269) D-D2 BB177:

'č̓a#ʔi-ya-kasʔé·n-i káx̣#áwé̓ yúʔá.

(ipse#your-face-orientation-POSS for#FOCUS QUOT)

"It was just for the way you held your head,' he said.' [sc. that was what made him fall in love with her.]

The fact that the Gerundive and the Subordinative non-finite complement clause occur only in the Imperfective and Perfective modes, and that in these cases the semantic difference between these modes is purely aspectual, has led me to posit that the deictically indexed schetic categories (mood, status, and tense) are simply not present in the semantic structure of these constructions.[82] Another way of putting the situation would be to say that these constructions are NON-FINITE, and to define non-finite situations as those that lack deictically indexed schetic categories.

Although this interpretation of finiteness seems quite straightforward and sensible, it carries a rather surprising implication: the operator HAB, which occurs with the Habitual modes, must form a natural group with the deictically indexed operators rather than the aspect operators if the above definition of finiteness is to hold. The reason for this is that the non-finite verbal forms do not occur in any of the Habitual modes, whereas they do occur in any of the various subtypes of Imperfective aspect: Progressive, Iterative, etc. If the above explanation is correct, then, the implication is that the Habitual, which we have characterized semantically as individuated-habitual, does not occur in non-finite forms because it is a deictically indexed category. The final implication, one which I have hinted at in the description of the Habitual modes in 8.2.1.6, is that there are two types of habituality, one (generalized-habituality) which is purely aspectual, and one (individuated-habituality) which is akin to a tense category. This distinction poses a problem for the prevalent view of habituality as a purely aspectual category. I will leave this problem as a project for further research.

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[82] Note that the Prohibitive-Optative has the same type of constraints: it occurs only in the Imperfective and Perfective, where the semantic distinction is purely aspectual. I see this as a case where a form which was originally nominalized and thus non-finite became historically reinterpreted as constituting a finite category through ellipsis of the verb heading the matrix sentence within which the nominalized clause was embedded.

8.5.3. The hypothetical protasis with *#ʔú’š*

Clauses with the clitic *#ʔú’š* ‘hypothetically’ are formally identical with Assertive clauses. Semantically, however, they behave like Subordinative clauses. Specifically, like Subordinative non-finite complement clauses, they occur only in the Imperfective and Perfective modes; the contrast between these modes is aspectual. Furthermore, they function syntactically as subordinate clauses, generally translating ‘as if...’, ‘if only...’, or (with a negative apodosis) ‘even if...’.

(270) N-L D344:

x̣ad-sa-wduwacix̣#ˀú·š qúnáx̣ yé·#x̣ad-yati·.

(me-throat-one.has.throttled#HYPOTH very.much thus#me-is)

'It was just as if I had been throttled.' [lit. 'I was (Stative Imperfective) very much as if one had throttled me (Perfective with *#ˀú'š*).]

(271) N-L D303:

ƛéł ke·#s-du-da·#ya·#qušugux̣sagé· cu has-du-ˀi·n#ˀú·š kax̣aní·g.

(not up#PL-3-around#mentally#understanding.will.come again PL-3-with#HYPOTH I.am.telling.3)

'They wouldn't understand it if I were to tell them.' [or more lit. 'They won't understand it (Future) even if I tell them (Imperfective with *#ˀú'š*).']

As illustrated by (272) and (273), the hypothetical clitic is frequently modified by the interrogative clitic *#gí ~ #gé*.

(272) N-L D320-1:

du-wa·G-ín#ˀú·š-gí x̣ad-wusiti·n du-ˀi·n-x̣ x̣ad-sati·-yí, ƛe yé·#ˀáwé.

(3-eye-with#HYPOTH-INTERROG me-3.saw 3-with-PERT me-is-SUB, just thus#FOCUS)

'As if she had seen (Resultative Perfective with *#ˀú'š*) with her own eyes that I was (Subordinative Perfective) with him, that's how [she acted].'

(273) N-L D936-8:

yi·dád#ˀú·š#gí č'a#wá·#yati·-yi ˀa· xá·na· ƛéł ˀax̣-ˀi·x̣ x̣'e·ta·n,

(now#HYPOTH#INTERROG ipse#how#3.is-ATTR one evening not me-TRANSL3.speaks-ITER)

'If only some evenings he would not speak to me (Negative Iterative Imperfective with *#ˀú'š*),

ˀa·Gá·#šágdé· ˀa-yá-· yán-de gʷqahá·n.

(then#maybe its-face-LOC rest-ALL I.will.stand)

then perhaps I would be able to stand it (Future).'

Note that although this construction may translate with a condition-contrary-to-fact protasis in English, it is not irrealis from a Tlingit point of view. Semantically, this construction can readily be analyzed as involving the substitution of some hypothetical reality-window (R_h) for the speaker's reality-window (R_0), in much the same way as a narrative now-window (N) is substituted for the speaker's now-window (N_0) in narrative sequences. Whereas the situation may be irrealis in R_0, it is realis when evaluated from the standpoint of the hypothetical reality-window R_h. Thus, for example, in (272), R_h is a hypothetical reality-window where the stepmother sees the child doing evil; this situation is therefore realis within R_h, and the verb form is accordingly Realis.

The hypothetical protasis may also be Decessive. In this case, it denotes a hypothetical situation that was possible in the past but is no longer possible, generally translating 'if (only)...had V-ed...'.

(274) N-L D390-1:

ƛéɬ#ʔú·š ʔax̣-tu-wá-· ʔušgú·-wun, ƛéɬ du-ʔi·x̣ ʔu·nqaní·g-un.

(not#HYPOTH my mind-surface-LOC 3.is.pleasant-DEC, not 3-TRANSL I.may.bother-DEC)

'If I had not liked her (Decessive Stative Imperfective with *#ʔú'š*) I wouldn't have bothered her (Decessive Potential).'

(275) WS: *duʔi·n#ʔú·š kax̣ʷani·g-ín.*

(3-with#HYPOTH I.told.3-DEC)

'If only I'd told her.'; 'I should have told her (Decessive Perfective with *#ʔú'š*).'

Within Tlingit, this construction is unique in having the form of a dependent clause and yet behaving syntactically and semantically like a non-finite dependent clause. I have no explanation for this fact, but will merely point out that colloquial

English has a construction with 'suppose' that resembles the Tlingit construction in this regard, e.g. 'Suppose you saw someone stealing, what would you do?'.

8.6. Epiaspect and lexical aspect

There are two marked epiaspects: the Progressive and the Durative (the latter really consists of a family of sub-epiaspects; see 6.5). At least three semantic operators will be necessary to deal with the epiaspects, namely IMPERF and ITER (discussed in 8.2.1.1 and 8.2.1.6.1) and PROG. It would seem possible to subsume both progressivity and iterativity under imperfectivity, in which case the feature IMPERF would be common to all epiaspectually marked forms (as well as to all Imperfectives).

As mentioned in 3.3.2.1 and 6.5, episapectual paradigms can be formed from most Durative Imperfectives, but only those formed from the Iterative-type (Iterative and Multiple-Iterative) Imperfectives are commonly used. The following examples illustrate the combination of Iterative-type epiaspect with the various modes:

(276) D-D1 B32-3:

yú daɢká#ˀáyá ˀá-x' yé·#ha·-wu·ti·x̣.

(yon interior#FOCUS there-LOC thus#us-was.ITER)

'We were living (Iterative Perfective) there in the Interior.'

(277) N-L F698:

has-wu·ná·t'.

(PL.3.died.MULT.ITER)

'They [both] died (Multiple-Iterative Perfective).'

(278) N-L F186-9:

'q'anašgidé· qá·-ǯ#xʷ'án ʔi-sa-·nɢaʔáx̣ǯ,'

(poor man-ERG#CLITIC your-voice-let.3.hear.ITER)

'"Let poor people always hear your voice (Iterative Hortative),"

yú·#ʔáwé ʔawƛix̣é·s' wé du-yád-k'-u gdaɢa·x̣-í.

(thus#FOCUS 3.prayed that 3-child-small-POSS 3.is.crying-SUB)

she prayed (Perfective) as her child cried (Subordinative Imperfective).

'ʔa-ká·x'#áyá yu·#gʷɢati·g.'

(it-according.to#FOCUS repeatedly#3.will.be.ITER)

"That will be the way it happens (Iterative Future) [that they recognize us]."

(279) N-L D613-5:

ha·w, ƛax̣ łí#ł#xʷ'án ʔa-ká-x̣ ʔi-se·x'a·ɢ-úq,

(now, very.much don't#not#CLITIC it-surface-TRANSL your-memory.shift. ITER-PROHIB/OPT)

Now, never ever forget (Iterative Imperfective Prohibitive);

ʔa-ká-· da·g#tinidatánǯ yá ʔa·dé ʔi-da·yax̣aqa yé.

(it-surface-LOC out#think.ITER this thus you-I.say.to way)

always recall (Iterative Imperative) these things I am saying (Imperfective) to you.'

(280) N-L B140:

ƛé·ł#x̣á·-yá ʔa·dé sít' tayi·-náx̣ yu·#qu-·nax̣łihašg-i yé ya·gʷ-tín.

(not#you.see-FOCUS thus glacier underneath-PERL repeatedly#one-may.float.ITER-ATTR way boat-with)

'There was no way to go [lit. float] (Iterative Potential) under the glacier in canoes.'

Following are examples of the Progressive epiaspect:

(281) N-L C596:

qašde ya·#ʔi-gʷqałaǯi·k'#áwé.

(I.thought along you-I.will.pack.on.back#FOCUS)

'I thought I was going to [have to] pack you along (Progressive Future).'

(282) N-L D1018-9:

gušé ʔa·dé ya·#qu-yagdusqé·ǯ yé,

(I.don't.know thus along#one-one.always.says.to way)

I don't know what they are saying (Progressive Habitual),[83]

ʔa-x̣'á·g-u#ʔági wé yaqatı́.

(its-midst-is#INTERROG that curse)

whether there are swear words among it.

(283) N-L A92-3:

ƛe ʔa·-dé ya·#gagú·d#áwé#cá yúʔá ƛe

(just there-ALL along#when.3.had.gone#FOCUS#only.then QUOT just)

'And when he had made his way there (Progressive Consecutive), he said,

wé yín-de#ʔáwé qux̣#ʔawƛiGín.

(that down-ALL#FOCUS back#3.looked)

he looked (Perfective) back down.'

We should note in particular that the Tlingit Progressive does not mean the same thing as the English Progressive, although there are semantic similarities between them. The Tlingit Progressive denotes a continuous transition from one location or state to another, and thus is particularly appropriate for Motion, Stative, and Eventive verbs. Unlike the English Progressive, it is rather rarely used with process (activity) verbs; Progressives of Processive verbs are in fact interpreted as Motion verbs.

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[83] The use of the Progressive here expresses a nuance impossible to translate in English: 'I don't know what (lit. how) they always go on saying', i.e. the speaker doesn't understand the words as they go by.

(284a) Theme *O-S-∅-s'uw*'* (∅: '-Process.) 'S chops O'

(284b) *has-ˀas'ú'w* (Imperfective) 'they are chopping it'

(284c) N-L C611:

wu·ǯ-gé·-de ya·#has-ˀanas'úw.

(RECIP-opposition-ALL along#PL-3.are.chopping)

'They were chopping along (Progressive Imperfective) toward each other [i.e. one starting from the top and one from the bottom].'

(285a) Theme *O-ka-S-š-xid** (∅: '-Process.) 'S writes O'

(285b) EN: *x'úx' ká-' kagɢišaxí·d*

(paper surface-LOC you.will.write.3)

'You will write it down on paper/in a book.'

(285c) N-L B249:

ƚdakád ˀád x'úx' ka·-dé ya·#kagɢišaxí·d.

(every thing paper surface-ALL along#you.will.write.3)

'You will write down everything in a book [i.e. go along writing everything down, or write from beginning to end].'

In (285b), for example, writing is treated as a process, so the Locative postposition -*x'* (here -') is used to designate the locus of the process. In (285c), on the other hand, the verb is treated as a motion theme, and therefore takes an aspectual derivational string denoting the direction of motion, in this case *PO-d* (∅) 'arriving at PO' (in the Progressive epiaspect *PO-d* is replaced by *PO-de'*; see 7.2.1.1.2).

Perhaps the best clues to the appropriate semantic treatment of the Progressive are (a) the absence of the Progressive Perfective and (b) the fact that the Progressive of Stative verbs refers to a transition from one state to another, and thus is to be represented PROG(BECOME(α(x))) rather than PROG(α(x)), where

$\alpha(x)$ is a state. Both these facts can be explained by making the following assumption:

(286) The argument of PROG cannot be a state.

This bars *PROG($\alpha(x)$) as a possible meaning of the Progressive of a Stative verb. The impermissibility of the Progressive Perfective is also explained by this constraint. According to my analysis of the Perfective in 8.2.1.2 and 8.4.2.2, the Perfective always has a RESULT component, which returns as its value a state, namely the state of affairs resulting from the occurrence of a past situation. The meaning of the Progressive Perfective would thus necessarily include *PROG(RESULT(S(x))), which is not permitted by (286).[84]

It is possible to specify more exactly the meaning of the Tlingit Progressive if we make the plausible assumption that it does not occur with Processive verbs as such, but only where they are explicitly or implicitly converted to Motion verbs. As pointed out above, the Progressive of Stative verbs refers to ongoing transition from one state to another, not to ongoing state, and thus is semantically identifiable with the Progressive of Eventive verbs, which also denotes ongoing transition. The Progressive of Motion verbs likewise refers refers to transition from one location to another. In short, then, the Progressive always takes as its argument a transition, i.e. BECOME(S).

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[84] Note also that the operator RESULT itself cannot take a state as its argument. This seems to be because it has the function of converting a non-state into a state. The same is not self-evidently true, however, of the PROG operator: the formal evidence from Tlingit does not support the claim that PROG returns a state as its value.

Let us describe inflectional aspect in the following way. A situation is located in a particular window of linguistic space and time by means of the deictically indexed schetic categories: the mood refers to the relationship between participants, the epistemic status narrows down the set of possible worlds relevant to the participants, and the tense selects a time interval within the world(s) in question. Aspect then describes the situation as it is visible through the window so selected.

Aspect is often described in terms of CLOSURE. According to Smith (forthcoming), the perfective aspect presents a situation as closed, i.e. complete with both endpoints of the situation, and the imperfective aspect presents a situation as open, i.e. incomplete, with neither endpoint included in the window of visibility. A slightly different way of defining aspect would be to say that aspect specifies the configuration of the situation visible in the window in terms of TRANSITION. With a perfective situation, a complete situational transition is visible. With an imperfective situation, either we see no transition at all, or the transition is incomplete.

This definition will further allow us to make distinctions among subtypes of imperfective situations that will be useful in Tlingit. A STATE imperfective situation is one where there is no transition. This category comprises the Tlingit Stative and Positional Imperfective types. A NON-STATE imperfective situation is one where transition does occur, but this is not a complete transition from one situation to another, but rather phasal transition, i.e. transition from phase to phase within a situation. Here we include the Tlingit Progressive and Durative (Processive and Iterative-type) Imperfectives.

Tlingit has two distinct formal categories of state imperfectives: Positional Imperfectives and Stative Imperfectives. Positional Imperfectives, as we have seen, occur only with verbs denoting maintenance of a particular posture or physical configuration. These correspond rather well with what Carlson (1981) calls 'dynamic' verbs, i.e. state verbs that can take progressives in English, such as 'sit' and 'lie'. The Tlingit Stative Imperfectives can be further subdivided on formal grounds into non-Extensional and Extensional Stative Imperfectives; the latter category refers to extension through space.

Non-state imperfectives are also divisible on formal grounds into two subtypes in Tlingit: Progressive Imperfectives and Durative Imperfectives. Semantically, we might characterize these as differing in the nature of the transition involved. The Progressive Imperfective refers to a linear transition progressing steadily toward a goal: at each successive phase of the situation, the goal is closer than it was at the preceding stage. This is true for Progressives of Stative verbs as well as Motion verbs.

With the Durative Imperfective, on the other hand, the transition is non-linear. Although the Durative Imperfective situation may have a natural goal or ending-point, this goal is not visualized as attained by a linear progression of phases. The prototypical Durative Imperfective situation is rather characterizable as involving pulses of activity which alternate between opposed phases, e.g. action and reaction, egress and regress, inception and cessation, occurrence and non-occurrence.

- **Perfective**: complete situational transition
- **Imperfective**: no transition or phasal transition
    - **State**: no transition
        - **Positional**: posture or physical configuration
        - **Stative**: other state
            - **Non-extensional**: descriptive or cognitive
            - **Extensional**: extension through space
    - **Non-state**: phasal transition
        - **Progressive**: linear progression toward a goal
        - **Durative**: non-linear pulses of activity
            - **Iterative-type**: phases necessarily discontinuous
                - **Iterative**: involving a single entity
                - **Multiple-iterative**: involving multiple entities
            - **Processive**: phases not necessarily discontinuous

Figure 64. Semantic classification of inflectional aspect

The phases of a Durative Imperfective situation may range from densely packed to discrete. If the phases are densely packed, one may find it difficult to delineate the starting and ending points of successive phases; in this case the situation is visualized as a continuous process. If the phases are discrete, on the other hand, the situation is viewed as a discontinuous string of occurrences. In Tlingit, as we have seen, it is useful to have a special designation for Durative

Imperfectives which always refer to situations with discrete phases; these are here called Iterative-type Imperfectives, including Iterative Imperfectives and Multiple-iterative Imperfectives. Durative Imperfectives which may refer to situations with densely-packed phases are called Processive Imperfectives.

We thus arrive at the classification of Tlingit inflectional aspectual categories given in Figure 64. It would be possible to devise a more detailed subdivision of the category of Processive Imperfectives according to stem type, as can be seen by comparing the descriptions of the various Processive Imperfective types in Figure 39. This will not be attempted here, however, because the lexical information is as yet incomplete.

8.7. Synopsis of inflectional schetic categories

The morphological and semantic structures for the Tlingit modes and mode-epimode combinations are summarized in Figure 65. The formal structures are quite approximate and only intended to serve as mnemonics for the reader; for full information see chapter 6. As for the semantic structures, I have elected to provide full and sometimes redundant semantic representations, often including the operator PRES^{N} even where this is, strictly speaking, unnecessary.

Status is not taken into consideration here, except to specify that the Admonitive and Prohibitive are negative counterparts to the Imperative and Hortative, and that the Affirmative and Negative Perfective Habitual have different semantic structures. Otherwise, negative forms can simply be generated by adding the operator NEG.

Figure 65. Morphological and semantic structures of the Tlingit inflectional schetic categories

A. DECLARATIVE MODES

A.1. NON-HABITUAL

Perfective:

MORPH: *ÿu-[+I]...-ÿ*~ ‘

SEM: PRES^{N}(RESULT(S(x))),

which may entail PAST^{N}(S(x).

Decessive Perfective:

MORPH: *ÿu-...-‘-i‘n*

SEM: PAST^{N0}(RESULT(S(x)) AND NEG(PRES^{N0}(RESULT(S(x))),

which may entail PAST^{N0}(PAST^{N1}(S(x))).

Imperfective:

MORPH: *∅-([+I])...*(with various stem forms)

SEM: PRES^{N}(IMPERF(S(x)).

Decessive Imperfective:

MORPH: *∅-...-i‘n*(with various stem forms)

SEM: PAST^{N0}(IMPERF(S(x)) AND NEG(PRES^{N0}(IMPERF(S(x))).

Future:

MORPH: *ASP#ga-ŭ-ɢa-...-·*

SEM: FUT^{N}(S(x)).

Decessive Future:

MORPH: *ga-ŭ-ɢa-...-‘-i‘n*

SEM: PAST^{N0}(FUT^{N1}(S(x)) AND NEG(PRES^{N0}(FUT^{N1}(S(x))).

Potential:

MORPH: *ASP-u-ɢa-[+I]...-‘*

SEM: POT^{R}(FUT^{N}(S(x))).

Decessive Potential:

MORPH: *ASP-u-ɢa-...-‘-i‘n*

SEM: PAST^{N0}(POT^{R}(FUT^{N1}(S(x))) AND NEG(PRES^{N0}(POT^{R}(FUT^{N1}(S(x))).

Realizational:

MORPH: *ASP-[+I]...-·*

SEM: [unclear]

A.2. HABITUAL

Perfective Habitual:

MORPH: *u-~ASP-...-ÿ~‘-ǯ*

SEM (Affirmative): HAB^{N}(S(x)).

(Negative): NOT-YET^{N}(S(x)).

Decessive Perfective Habitual:

MORPH: *ASP-~u-...-ÿ~‘-ǯ-i‘n*

SEM (Affirmative): PAST^{N0}(HAB^{N1}(S(x))

AND NEG(PRES^{N0}(HAB^{N1}(S(x))).

(Negative): PAST^{N0}(NOT-YET^{N1}(S(x))

AND NEG(PRES^{N0}(NOT-YET^{N1}(S(x))).

Imperfective Habitual:

MORPH: Imperfective plus *#nu‘ǯ*

SEM: $\mathrm{HAB}^{\mathrm{N}}(\mathrm{IMPERF}(\mathrm{S}(x)).$

Decessive Imperfective Habitual:

MORPH: Imperfective plus *#nu‘ǯ-i·n*

SEM: $\mathrm{PAST}^{\mathrm{N0}}((\mathrm{HAB}^{\mathrm{N1}}(\mathrm{IMPERF}(\mathrm{S}(x))) \text{ AND}$

$\mathrm{NEG}(\mathrm{PRES}^{\mathrm{N0}}(\mathrm{HAB}^{\mathrm{N1}}(\mathrm{IMPERF}(\mathrm{S}(x)))).$

Future Habitual:

MORPH: Future plus *#nu‘ǯ*

SEM: $\mathrm{HAB}^{\mathrm{Ni}}(\mathrm{FUT}^{\mathrm{Ni+1}}(\mathrm{S}(x))).$

Decessive Future Habitual:

MORPH: Future plus *#nu‘ǯ-i·n*

SEM: $\mathrm{PAST}^{\mathrm{N0}}(\mathrm{HAB}^{\mathrm{N1}}(\mathrm{FUT}^{\mathrm{N2}}(\mathrm{S}(x)))) \text{ AND}$

$\mathrm{NEG}(\mathrm{PRES}^{\mathrm{N0}}(\mathrm{HAB}^{\mathrm{N1}}(\mathrm{FUT}^{\mathrm{N2}}(\mathrm{S}(x))))).$

B. DEONTIC MODES

Imperative:

MORPH: *ASP-...-ÿ* ~ ‘

SEM: $\mathrm{REQUEST}^{\mathrm{P}}(\mathrm{FUT}^{\mathrm{N}}(\mathrm{S}(x))).$

Hortative:

MORPH: *ASP-ɢa-...-ÿ* ~ ‘

SEM: $\mathrm{REQUEST}^{\mathrm{P}}(\mathrm{FUT}^{\mathrm{N}}(\mathrm{S}(x))).$

Admonitive:

MORPH: *u-ASP-...-·*

SEM: REQUEST^{P}(NEG(FUT^{N}(S(x)))).

Prohibitive:

MORPH: Imperfective or Perfective plus *-(i‘)*G

SEM: REQUEST^{P}(NEG(FUT^{N}(S(x)))).

Optative:

MORPH: Imperfective or Perfective plus *-(i‘)*G

SEM: REQUEST^{P}(POT^{R}(FUT^{N}(S(x)))).

C. CIRCUMSTANTIAL MODES

Consecutive:

MORPH: *ASP-...-·* or Consecutive plus *#ní·g*^{w})

SEM: PAST^{N0}(S_c(y)) AND NEXT^{N1}(S_m(x)).

Imperfective Consecutive:

MORPH: Imperfective plus *#ní·g*^{w}

SEM: PAST^{N0}(IMPERF(S_c(y))) AND NEXT^{N1}(S_m(x)).

Future Consecutive:

MORPH: Future plus *#ní·g*^{w}

SEM: PAST^{N0}(FUT^{N1}(S_c(y))) AND NEXT^{N1}(S_m(x)).

Conditional:

MORPH: *ASP-...-n-(n)i‘* (or Consecutive plus *#níg*^{w}*ni‘*)

SEM: FUT^{N0}(S_c(y)) AND NEXT^{N1}(S_m(x)).

Imperfective Conditional:

MORPH: Imperfective plus *#nígʷni‘*

SEM: $\mathrm{FUT}^{N0}(\mathrm{IMPERF}(S_c(y)))$ AND $\mathrm{NEXT}^{N1}(S_m(x))$.

Future Conditional:

MORPH: Future plus *#nígʷni‘*

SEM: $\mathrm{FUT}^{N0}(\mathrm{FUT}^{N1}(S_c(y)))$ AND $\mathrm{NEXT}^{N1}(S_m(x))$.

Contingent:

MORPH: *ASP-ɢa-...-n-ín* (or Consecutive plus *#ɢanígún*)

SEM: $\mathrm{HAB}^{N0}(S_c(y))$ AND $\mathrm{NEXT}^{N1}(S_m(x))$.

Imperfective Contingent:

MORPH: Imperfective plus *#ɢanígún*

SEM: $\mathrm{HAB}^{N0}(\mathrm{IMPERF}(S_c(y)))$ AND $\mathrm{NEXT}^{N1}(S_m(x))$.

Future Contingent:

MORPH: Future plus *#ɢanígún*

SEM: $\mathrm{HAB}^{N0}(\mathrm{FUT}^{N1}(S_c(y)))$ AND $\mathrm{NEXT}^{N1}(S_m(x))$.

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